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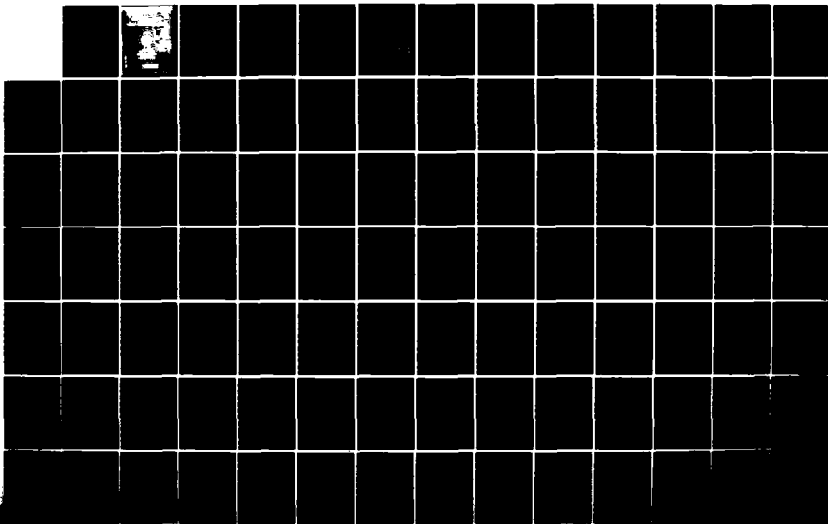PROGRAM MAINTENANCE MANUAL(U) ARMY CONCEPTS ANALYSIS
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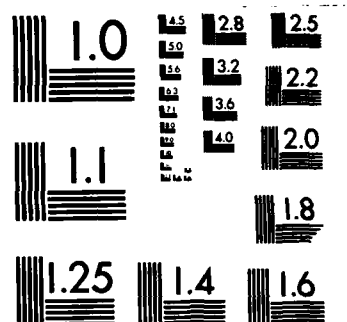UNCLASSIFIED   CAA-D-85-6-VOL-4   F/G 9/2   NL

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Vol I	- Functional Description	(51 pages)
Vol II	- User's Manual	(67 pages)
Vol III	- Computer Operation Manual	(23 pages)
Vol IV	- Program Maintenance Manual	(238 pages)

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E-DATE Model, documentation, functional description, program maintenance manual, user's manual, computer operation manual, decision-support system, logistics, TAEDP, unit readiness, equipment redistribution.

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

A set of documentation has been reissued for the Effective Date (E-DATE) Model following DOD documentation standards (DOD 7935.1-S). The earlier documentation, including a volume of changes, is superseded by the new issue. Four types of documentation were generated as follows: A functional description, a user's manual, a computer operation manual, and a program maintenance manual (including system/subscription and program specifications into a single volume) The remaining documentation types described in the DOD standards were not considered applicable.

DD FORM 1473   EDITION OF 1 NOV 65 IS OBSOLETE

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EFFECTIVE DATE (E-DATE) MODEL

DOCUMENTATION

VOLUME IV - PROGRAM MAINTENANCE MANUAL

MAY 1985

PREPARED BY

FORCE SYSTEMS DIRECTORATE

US ARMY CONCEPTS ANALYSIS AGENCY

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FOREWORD

Documentation of the E-DATE Model was prepared under contract to the US Army Concepts Analysis Agency (CAA) by Technassociates, Inc. of Rockville, Maryland. As provided for in the contract, four volumes of documentation were produced to DOD Automated Data Systems Documentation Standards, DOD 7935.1-S (CAA-D-83-3, October 1983).

The requirements for the documentation were established by coordination among CAA, as model developer; the Logistics Evaluation Agency (LEA), as designated operator and maintainer of the model; and the Directorate for Plans and Operations, ODCSLOG, as proponent for and user of the model.

The present revisions to the documentation were made by CAA to reflect enhancements made to the E-DATE Model. These revisions supersede entirely the earlier documentation (CAA-D-83-3) as well as subsequent changes published in August 1984 (CAA-D-84-6).

RE: Rept. Nos. CAA-D-85-5, 6, 7
The classified references in these reports
do not contain classified information per
Mr. William J. Aldridge, Army Concepts
Analysis Agency

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EFFECTIVE DATE (E-DATE) MODEL DOCUMENTATION

CONTENTS

CAA-D-85-6

FIGURES

FIGURE

TABLES

SECTION 1. GENERAL DESCRIPTION

1.1 Purpose of Program Maintenance Manual. The objective of the Program Maintenance Manual for the Effective Date (E-DATE) Model is to provide the maintenance programer with the information necessary to effectively maintain the system.

1.2 Project References

    a. Effective Date (E-DATE) Model Documentation, Volumes I, II, III, and IV, CAA-D-83-3, Technassociates, Inc., Rockville, MD and US Army Concepts Analysis Agency, Bethesda, MD, October 1983.

    b. Effective Date (E-DATE) Model Documentation (an updated version of reference 1.2a above), CAA-D-85-6, US Army Concepts Analysis Agency, Bethesda, MD, May 1985:

        (1) Volume I - Functional Description
        (2) Volume II - User's Manual
        (3) Volume III - Computer Operation Manual
        (4) Volume IV - Program Maintenance Manual.

    c. Effective Date (E-DATE) Model Documentation, Request Processor, CAA-D-85-7, US Army Concepts Analysis Agency, Bethesda, MD, May 1985.

    d. AR 220-1, Unit Status Reporting, 1 June 1981.

    e. Logistics: Total Army equipment Distribution Program (TAEDP) User's Guide, DESCOM-P 700-1, US Army Depot System Command, Chambersburg, PA, 2 May 1983.

1.3 Terms and Abbreviations. The following listing provides an explanation of terms and acronyms subject to interpretation by the reader of this document.

ALO	authorized level of organization
A-RECORD	the TAEDP record containing unit data
B-RECORD	the TAEDP record containing requirement data
C-RECORD	the TAEDP record containing assets data
CCT	Consolidated Change Table (now CTU)
CTLLVL	control level (unit identifier)
CTU	Consolidated TOE Update (formerly CCT)
D-RECORD	the TAEDP record containing substitute data

DAMPL	Department of the Army Master Priority List
E-DATE	Effective Date Model
ERC	equipment readiness code
fmt	format
FY	fiscal year
LIN	line item number
MACOM	major Army command
MTOE	Modification Table of Organization and Equipment
POM	Program Objective Memorandum
SRC	standard requirements code
TAEDP	Total Army Equipment Distribution Program
T-RECORD	the TAEDP record containing equipment change data
UIC	unit identification code
var	variable(s)

SECTION 2. SYSTEM APPLICATION

2.1 <u>System Description</u>. The E-DATE Model is a decision support system for the logistics staff officer which permits the examination of two critical logistics issues: the logistic readiness of Army units, and the redistribution of unit equipment, so as to improve the readiness of selected units (albeit at the expense of degraded readiness of other units). The E-DATE Model provides information to logistics staff officers on the equipment readiness of units based on (TAEDP) projected equipment fills. With this information, the officer can form a judgment as to the adequacy of the fill with respect to the capacity of an individual unit to carry out its mission and the capacity of groups of activated units to contribute to the force readiness.

The E-DATE Model operates in the planning space of the 7-year budgeting cycle provided by TAEDP, consisting of the budget year, the target year, and the 5 outyears. The E-DATE Model is designed to operate on five distinct sets of data as derived from the TAEDP data tapes. One data set consists of activated units, that is, new units brought into existence during the 7-year planning period. Another data set consists of existing units impacted by changes identified in the Consolidated TOE Update (CTU). The third data set consists of unprogramed units (without assets) and associated billpayer units. The fourth group consists of the units undergoing conversions during the planning period. The fifth group consists of units of special interest to the user. The logistics staff officer identifies the data sets of interest, and the E-DATE Model accesses the appropriate data and displays the readiness of the set of units by fiscal year, from the activation year forward to the end of the planning cycle. The readiness information is presented in both summary (unit level) and detailed (equipment level) form.

The model uses the C-level measure of readiness in two ways. First it computes the readiness of units in accordance with the C-level definitions and displays the results for each unit for each year of the 7-year planning period. Having computed readiness, the model is then prepared to accept a user specification of readiness to control the redistribution of assets in a manner to effect a change in the readiness of units previously rated. To effect this change, the user must indicate the units whose readiness is to be increased and those units whose readiness may be decreased, to achieve the increased level of readiness. The readiness rating takes into account the pacing items in each unit and generates a single measure for each unit as follows:

Level C-1   At least 90 percent of the reportable equipment is present at 90 percent of the required quantities, and all (100 percent) of the pacing items of equipment are present at 90 percent or greater of the required quantities.

Level C-2   At least 90 percent of the reportable equipment is present at 80 percent of the required quantities, and all (100 percent) of the pacing items of equipment are present at 80 percent or greater of the required quantities.

Level C-3   At least 90 percent of the reportable equipment is present
at 65 percent of the required quantities, and all (100
percent) of the pacing items of equipment are present at
65 percent or greater of the required quantities.

Level C-4   If not rated as above.

The model provides this rating information for each unit activated in the
fiscal year indicated by the logistics staff officer for all remaining
years in the planning cycle. In addition, the model maintains in permanent
storage the detailed results on the rating of the individual equipments on
which the overall unit rating is based. This information may either be
accessed via terminal or made available in hard copy form.

The model is implemented as a set of three in-line processors and a fourth
off-line request processor which is used to control the three in-line pro-
cessors. This mannual is concerned with the in-line processors. A
spearate report (see ref 1.2c) describes the off-line request processor.
The first processor, the Tape Processor, retrieves the data on all the
activated units in the planning cycle from the Army-wide (TAEDP) source.
The second, the File Processor, extracts the data for units activated in a
particular year and reformats the data for use by the third, the Assessment
Processor. The Assessment Processor takes the data, carries out the rating
calculations, and displays and stores the rating data. In a separate mode
of operation, the Assessment Processor may be used to transfer equipment
from one unit to another under user control. The functions of the
individual processors are described in paragraph 2.3, General Description.

2.2 Security and Privacy. All program code and listings are considered
UNCLASSIFIED and require no special security considerations.

All output reports will be considered CONFIDENTIAL and should be handled in
a manner consistent with the guidelines of your office.

The files utilized by the model have a number coded in position 7 of the
name. This position will contain one of the following codes:

    0 - UNCLASSIFIED
    2 - CONFIDENTIAL
    4 - SECRET

The majority of the files utilized by the model will be classified as
SECRET.

2.3 General Description. The E-DATE Model is divided into three
processors which must be run sequentially. Once the Tape Processor is run,
the File Processor may be run without a rerun of the Tape Processor. The
first two processors prepare the TAEDP data for use by the Assessment
Processor. More information on the sequence of runs will be found in the
E-DATE User's Manual and Operation Manual (refs 1.2b (2) and (3)). The
interrelationship of the three processes is displayed in the System
Flowchart, Figure 2-1.
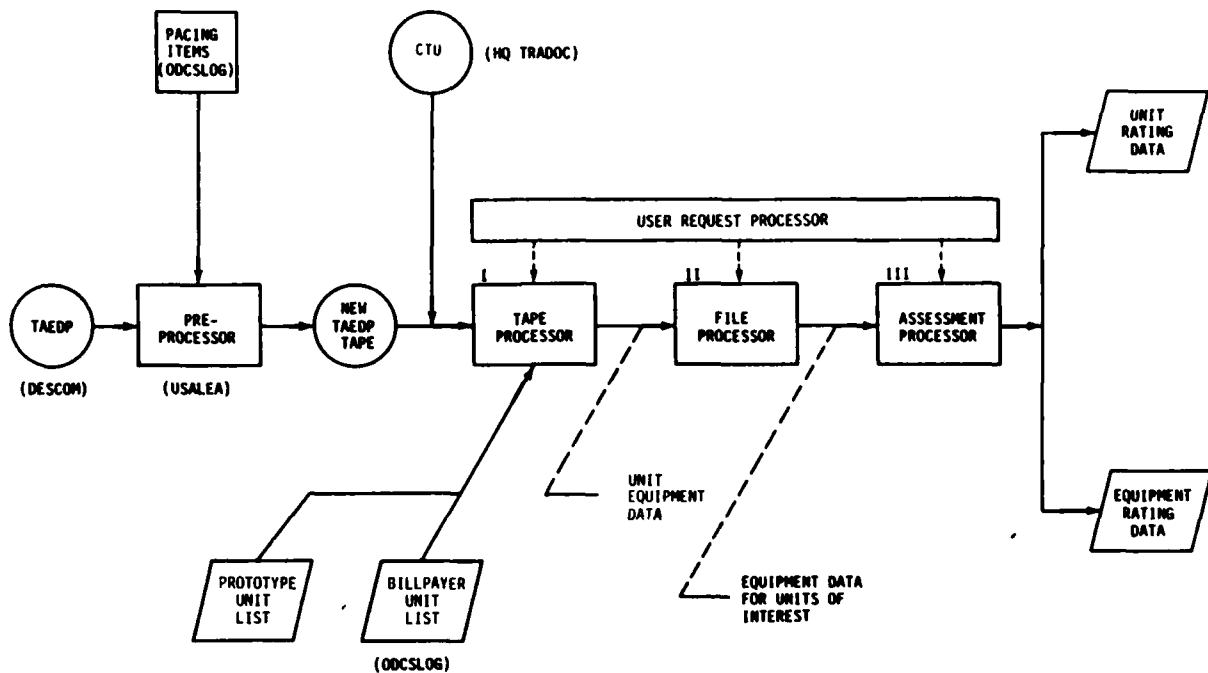
Figure 2-1. System Flow

The initial processor, the Tape Processor, contains one main program and 42 subroutines. The functions of each of these routines is explained in the Program Description, subsection 2.4. The functions of the Tape Processor are as follows:

- Selects units activated in the planning period from the TAEDP data base for analysis by the model.

- Scans the Consolidated TOE Update (CTU) for units that will undergo equipment changes during the planning cycle period as a method of TAEDP unit selection.

- Generates a set of unprogramed units and a set of billpayer units by selection from the TAEDP data for analysis by the model.

- Transfers the selected data to separate output files for use in subsequent processing.

The second processor, the File Processor, contains one main program and 28 subroutines. The functions of each of these routines are explained in the Program Description, subsection 2.5. The functions of the File Processor are as follows:

- Accepts an input specifying the year of activation or the major command of units to be selected for rating.

- Scans the file generated by the Tape Processor for units meeting the selection criteria.

- Groups the units according to unit data (A-RECORD), requirements data (B-RECORD), assets data (C-RECORD), or equipment change data (T-RECORD). These units are also grouped by fiscal year.

- Sorts the data in inverse DAMPL (Department of the Army Master Priority List) sequence and creates one large file for the Assessment Processor.

- Provides a summary of all the records processed.

The final processor, the Assessment Processor, contains one main program and 44 subroutines. The functions of each of these routines are explained in the Program Description, subsection 2.6. The functions of the Assessment Processor are defined as follows:

- Selects the units to be rated through the use of parameters input by the user.

- Calculates the unit readiness based on the unit rating criteria defined in AR 220-1.

- Provides a rating summary depicting the rating of individual units over time and the patterns of ratings of groups of units.

- Provides additional summary reports, including marginal rating summaries, to provide the logistics staff officer with additional information concerning the unit ratings.

- Generates a worksheet to provide the logistics staff officer with a means of specifying those units to be uprated and those that are acceptable for downrating in a redistribution being considered. These selections are transferred directly into the model.

- Provides a file containing equipment rating data for access by terminal or hard copy.

The following conventions are utilized throughout Sections 2.4 through 2.6, Program Description, in describing the functions of the routines.

- An asterisk (*) enclosed in parentheses after a program name will normally represent the FORTRAN capability for processing control. For example, the statement "Call RDRCD (RDFILE, *400, *500)" will cause the program control to pass to label 400 in the calling routine when a "Return 1" is executed in RDRCD. Additionally, the execution of a "Return 2" statement would pass control to label

500. This type of a situation would normally be represented in the Program Description documentation as "Call RDRCD (RDFILE, *, *)." Asterisks will also be used in the "called" routine as well.

● Parentheses containing variable names or other expressions will represent subscripts if they follow a table name and arguments of a subroutine call if they follow a program or subroutine name.

● Bullets (●) and indentations are utilized in the "Processing" section of each Program Description to designate programing levels. Each margin (indentation) with a bullet starting the line will represent a deeper level of detail in the code.

2.4 <u>Program Description - Tape Processor</u>. Subsection 2.4 will contain a description of the main program for the Tape Processor and the 42 associated subroutines. A complete listing of the programs to be discussed in subsection 2.4 is contained below.

Paragraph number	Program name
2.4.1	MAIN
2.4.2	ANYSRC
2.4.3	CHGLST
2.4.4	CHKEQP
2.4.5	CHKSPC
2.4.6	CHKSRC
2.4.7	CNTLVL
2.4.8	CNTUFY
2.4.9	DECODE
2.4.10	DSYALL
2.4.11	DSYCTL
2.4.12	DSYCT1
2.4.13	DSYCT2
2.4.14	DSYFY1
2.4.15	DSYFY2
2.4.16	DSYNP1
2.4.17	DSYNP2
2.4.18	DSYNW1
2.4.19	DSYNW2
2.4.20	DSYNW3
2.4.21	ENCOD
2.4.22	PAGADV
2.4.23	PIKACT
2.4.24	PIKCHG
2.4.25	PIKCON
2.4.26	PIKNON
2.4.27	PIKSPC
2.4.28	RDRCD
2.4.29	RDRQST
2.4.30	RDSPC
2.4.31	TSTBIL

2.4.32	TSTNON
2.4.33	WRBCD
2.4.34	WRBLP
2.4.35	WRBLPA
2.4.36	WRCCT
2.4.37	WRHDG
2.4.38	WRNMSG
2.4.39	WRNONA
2.4.40	WRRCD
2.4.41	WRTTL
2.4.42	WSRCD
2.4.43	XLATE

A set of figures and tables is provided to assist the reader in understanding the internal logic of the model. The exhibits begin with a flow diagram of the Tape Processor to provide a general understanding of the system. Other figures which follow are meant to provide a more detailed picture of the logic of the individual data elements and routines. A description of the purpose of each figure is presented below in the same sequence as the figure appears in this subsection.

a. Tape Processor Flow Diagram. It is recommended that the flow diagram (Figure 2-2) be used as the starting point for the first-time reader in understanding the logic of this processor. An attempt has been made to highlight the major functions performed and explain them in such a manner that a reader totally unfamiliar with the system could understand. The subsections 2.1, System Description, and 2.3, General Description, should be read first to obtain an introduction to the purpose of the Tape Processor. The flow diagram is annotated with subroutine names wherever possible in order to link the overall logic of the processor with the individual functions of eac: routine.

b. Common Block Cross-reference (Tape Processor). The majority of information is passed between routines via common blocks. Figure 2-3 should assist the reader in understanding which data elements, or blocks of elements, are used in which routines. This should be especially useful when trying to trace an individual element throughout the entire processor, or in cases where a new common block variable is added. If a new variable is added to a common block, this table will show immediately which routines will have access to the new variable.

c. Common Block Dictionary (Tape Processor). The Common Block Dictionary (Table 2-1) identifies the individual arrays or variables defined within each common block. This table will serve as a useful tool in tracing a specific data element throughout the processor. The Data Dictionary, described on the following page, is also useful in describing the function and usage of each common block element.

d. <u>Program Unit Hierarchy (Tape Processor)</u>. Figure 2-4 shows the structure of all the routines within the Tape Processor. The processor is comprised of one main program and a series of subroutines, all of which are controlled, directly or indirectly, by the main program. This chart shows how the processor flows from the main program through each of the subroutines. Figure 2-4, along with Figure 2-5, allows the reader to see which routines are called by other routines, rather than by the main program.

e. <u>Subroutine Cross-reference (Tape Processor)</u>. The subroutine cross-reference (Figure 2-5) provides an explanation of which routines control the processing of other routines. On the vertical axis (side of the page), the calling (controlling) routines are shown. The routines called are shown on the horizontal axis (top of page). A dot in the appropriate column links the called routine with the controlling routine.

f. <u>Data Dictionary (Tape Processor)</u>. Table 2-2 provides a description of each variable passed via common block in the Tape Processor. This listing includes both variables and arrays and describes the size, format, uses, and purposes of each data element. This table should be used as the main reference for information on the purpose, or other characteristics, of a data element.

g. <u>Report (Tape Processor)</u>. Figures 2-6 through 2-11 provide a layout of the reports produced by the Tape Processor. These figures will be referenced within individual program descriptions wherever applicable and provide further information on the format and content of each report.

NOTE: Figures and tables mentioned in this section appear as a group in the following pages. They are then referenced, as needed, in the later program descriptions.
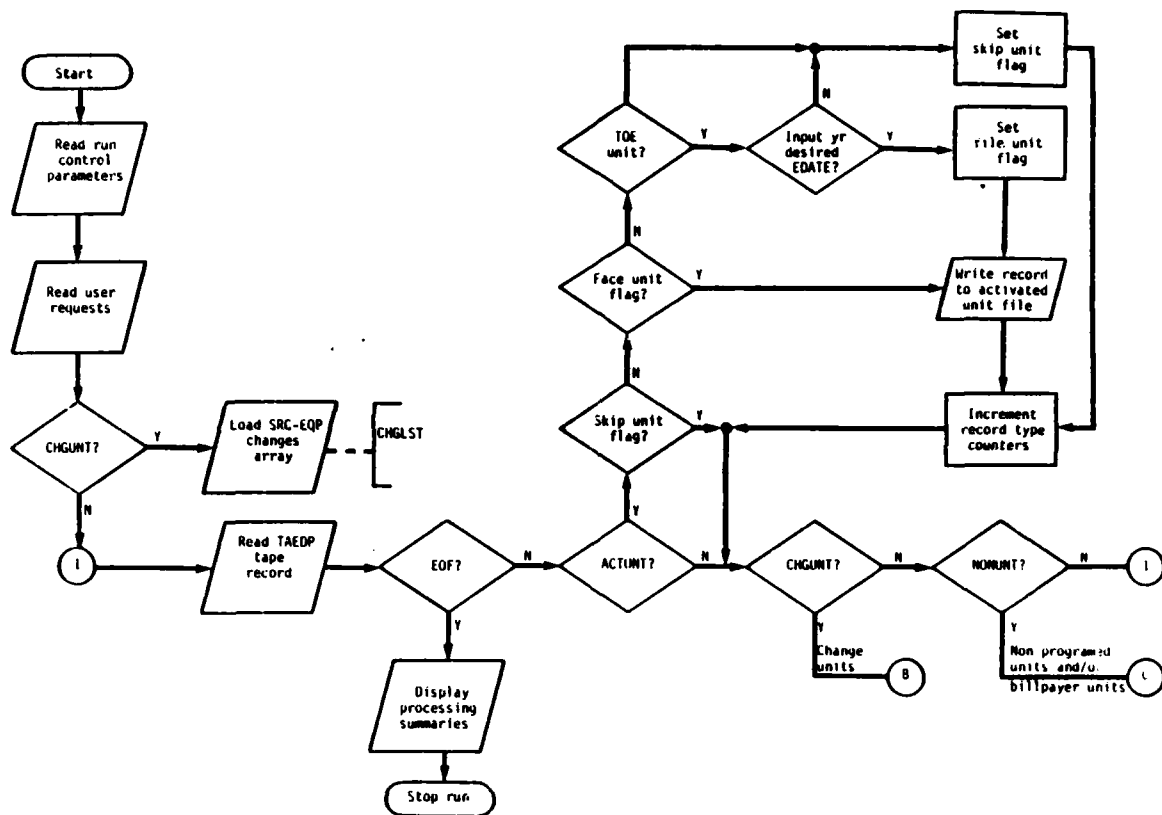
Figure 2-2. Tape Processor Flow Diagram
(page 1 of 3 pages)
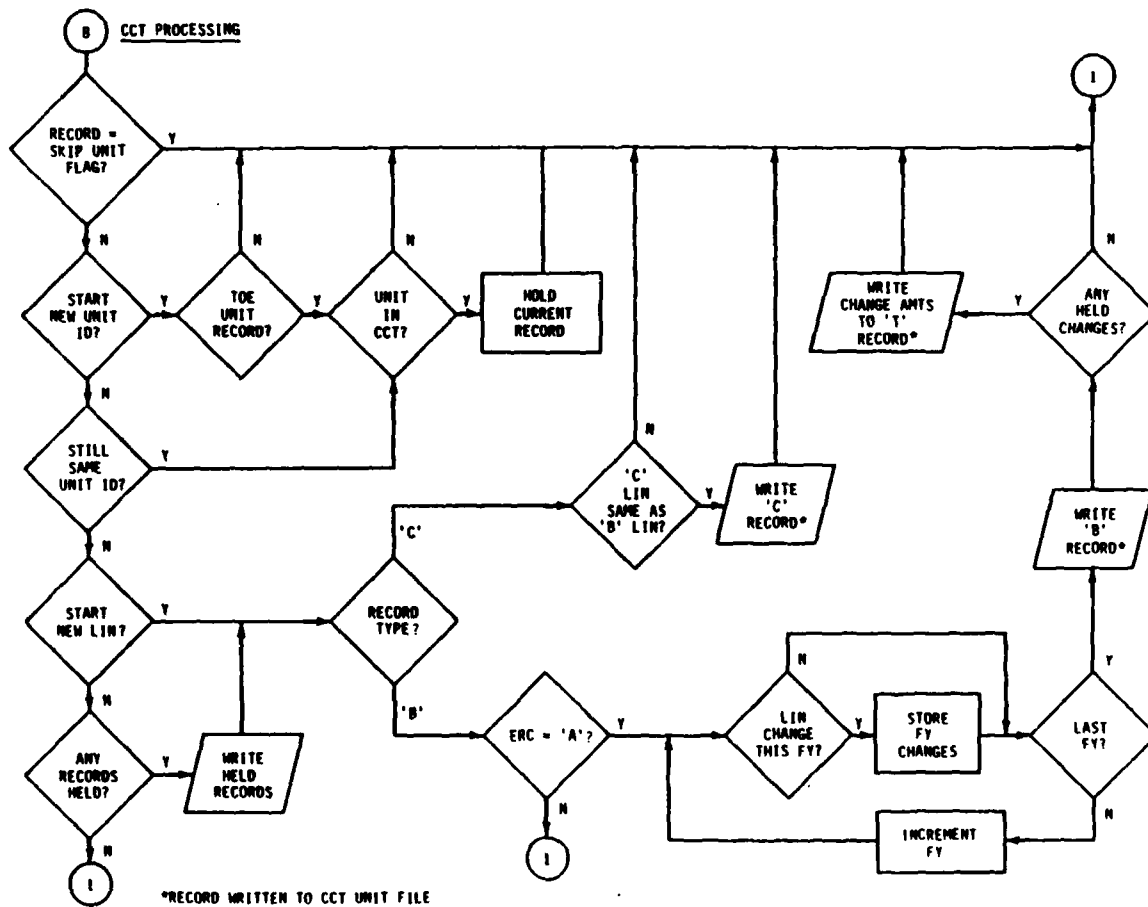
Figure 2-2. Tape Processor Flow Diagram
(page 2 of 3 pages)

Figure 2-2. Tape Processor Flow Diagram
(page 3 of 3 pages)

ROUTINE	COMMON BLOCK XCONTRL	XINPUT	XBCD	XSRCGMT	XSRCDTA	XSRCSAV	XSRCTMP	XSUMLVL	XDSYNTH	XMONGMT	XDSYTXT
ANYSRC	■		■		■						
CHGLST	■	■		■	■		■				
CHKEQP	■		■		■	■					
CHKLST	■	■									
CHKSPC	■	■									
CHKSRC	■	■	■		■	■					
CNTLVL	■							■			
CNTVFY	■	■						■			
DECODE	■		■								
DSTALL	■										
DSYCTL											■
DSYCT1				■	■						
DSYCT2	■		■								
DSYFY1								■			■
DSYFY2								■			■
DSYNP1	■		■							■	
DSYNP2	■		■							■	
ENCOD		■	■		■	■					
MAIN-CHG	■	■						■			
MAIN-MON	■	■						■			
MAIN-MLT	■	■						■			
PAGADV											
PIKACT	■	■	■								
PIKCHG	■		■			■					
PIKCON	■		■								
PIKNON			■							■	
PIKSPC	■		■								■
RDRCD	■		■								
RDRCD-TAPE	■		■								
RDRQST										■	
RDSPC		■									
TSTBIL			■							■	
TSTNON			■							■	
VRBCD			■							■	
VRBLF			■							■	
VRBLFA			■							■	
VRCCT			■								
VRCLS		■							■		
VRNDG		■									■
VRNMSG	■					■					
VRNONA			■							■	
VRRCD			■								
VRTTL		■						■			
VSRCD			■							■	
XLATE				■							

Figure 2-3.   Common Block Cross-References (Tape Processor)

Table 2-1. Common Block Dictionary (Tape Processor)

Common block	Variables
XCONTRL	CTLLVL, KPLVL, XFRLVL, TYPUNT, ACTYR, IALL, SRC, WRNCT
XINPUT	EDATE, FRSTFY, DTADTE, NFYSET, NEWUNT, NNEW, RUNCLS, CCTID, SPCLST, WRNPAS
NONUNT	IQT, RDATE, RID, RCODE, RBR, TYPBLP, BLPID, RMACOM, RAMO, RADMPL, RRNG, RCLAIM, NEWID, IFLG, UICHLD, TYPRCD, NPU, BPU, IRCNT, ICNT, AREC, BREC, IFCNT, JFLG, BUIC, JCNT, IHD, CLMHLD, MATBIL, MATNON, NDAMPL, UNISTT, SRCHLD
XRCD	RECORD, RCDTYPE, TRCORD
XSRCCNT	POSELD, NEGLFLD, ZROFLD, ADDSKP, PERSKP, EQPTOT
XSRCDTA	CHGSRC, CHGLIN, CHGAMT, NSRC, NEQP
XSRCSAV	SRCFY, SAVRCD, NRCD, ISRC, IEQP, LSTRCD
XSRCTMP	TMPSRC, TMPLIN
XSUMLVL	TOEFLD, NONSKP, TOESKP, AUGSKP, TDASKP, POMSKP, UNTID, UNTFY

NOTE: Refer to Table 2-2 for additional information on Tape Processor variables.
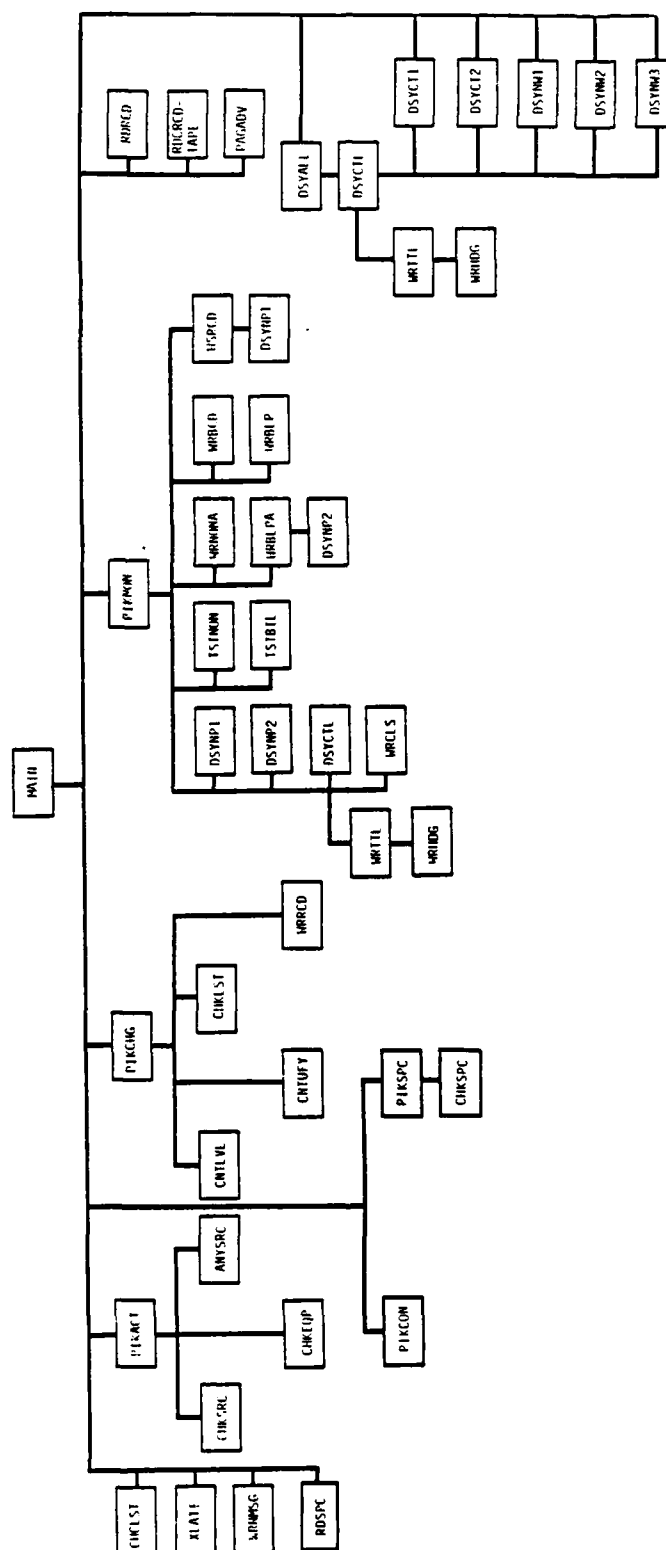
Figure 2-4. Program Unit Hierarchy (Tape Processor)

Figure 2-5. Subroutine Cross-Reference (Tape Processor)

Table 2-2. Data Dictionary - Tape Processor
(page 1 of 7 pages)

Var	Subroutine	Size	Fmt	Description
ACTYR	CHKSRC(P) CNTUFY(P) DECODE(I)* DSYALL(P) PIKNEW(P)	N/A	I2	Fiscal year in A-RECORD
ADDSKP	CHGLST(P)* DSYCT1(O)	1,000	I4	Total number of change records adding new equipment for each SRC (max 1,000)
AREC	PIKNON WRNONA WSRCD	N/A	I2	The counter for number of A-RECORDS of a unit in TAEDP array
AUGSKP	CNTLVL(P)* DSYNW1(O)	N/A	I4	Count of augmented units
BLPID	RDRQST TSTBIL DYSNP2	99	A9	Specific UIC, TOE, or SRC for requested billpayer unit
BPU	TSTBIL	N/A	I2	It is the subscript for the request arrays of billpayer units indicating match
CHGAMT	CHGLST(P)* ENCODE(O)	(1,000x40)	I	The amount of the change for each item of equipment (max 40) per SRC (max 1,000)
CHGLIN	CHGLST(P)* CHKEQP(P)	(1,000x40)	A6	The ID of LINs affected by a CTU change (max 40) per SRC (max 1,000)
CHGSRC	CHGLST(P)* CHKSRC(P) DSYCT1(O)	1,000	A9	The SRCs extracted from the CTU file (max 1,000)
CLMHLD	TSTNON PIKNON	N/A	A21	When request and match with TAEDP are made, positions 124-144 are put in hold
CLVL	PIKNON DYSNP2	N/A	A6	TAEDP record pos 1-6

Table 2-2. Data Dictionary - Tape Processor
(page 2 of 7 pages)

Var	Subroutine	Size	Fmt	Description
CTLLVL	ANYSRC(P) CHGLST(P) CNTUFY(P) DSYALL(P) DSYCT2(P) MAIN(P) PIKCTU(P) PIKACT(P) RDRCD(I)*	N/A	A6	The unit ID extracted from the A-RECORD
CCTID	MAIN(I)* WRHDG(O)	N/A	A6	The CTU identifier to be displayed on reports
DTADTE	MAIN(I)* WRTTL(O)	N/A	A8	TAEDP run date (MM/DD/YY)
EQPTOT	CTULST(P)* DSYCT1(P)	1,000	I4	Total number of usable LIN changes for each SRC (max 1,000)
FRSTFY	CHKSRC(P) CNTUFY(P) MAIN(I,P)* PIKNEW(P)	N/A	I2	First fiscal year of planning period
IALL	CNTLVL(P)* DSYNW1(O)	N/A	I4	Count of all units processed
ICNT	RDRQST TSTNON	N/A	I2	The counter for the number of nonprogramed units requested
IEQP	CHGLST(P)* CHKEQP(P) ENCODE(P)	N/A	I2	Index for number of LINs in an SRC
IHD	RDRQST PIKNON	N/A	I2	Flag to control call to DSYNP1 to put headers on Unit #17 and Unit #18
IQY	RDRQST WSRCD	99	I2	Number of nonprogramed units requested
ISRC	CHKSRC(P)*	N/A	I3	Index for SRC table

Table 2-2. Data Dictionary - Tape Processor
(page 3 of 7 pages)

Var	Subroutine	Size	Fmt	Description
JCNG	RDRQST TSTBIL	N/A	I2	The counter for number of billpayer units requested
LSTRCD	CHKEQP(P)*	N/A	A1	Record type of previous CHKSRC(P)*record PIKCTU(P)*
LSTSRC	ANYSRC(P)	N/A	A9	SRC of previous record CHGLST(P)* CHKSRC(P)*
MATBIL	TSTBIL	N/A	I2	=0 means no match, MATBIL=1 means billpayer match
MATNON	TSTNON	N/A	I2	=0 means no match, MATNON=1 means nonprogramed unit match
NDAMPL	RDRQST	99	I5	DAMPL, user request file DSYNP1 for nonprogramed unit
NEGFLD	CHGLST(P)*	1,000	I4	The total number of LINs DSYCT1(0) for each SRC with a negative change amount (max 1,000)
NEQP	CHGLST(P)*	1,000	I	Total number of LIN changes CHKEQP(P) processed for each SRC (max 1,000)
NEWID	WSRCD	99	A6	The overlay UIC of selected TSTNON nonprogramed units. It is DSYNP1 composed of RCODE and IQY
NFYSET	MAIN(P)*	7	I	The 7 fiscal years of the WRHDG(0) planning period expressed as the last two digits of the year
NNEW	CHKLST(P)	N/A	I4	Number of units from first RDUNT(P)* year activations file
NONSKP	CNTLVL(P)*	N/A	I4	Count of nonunits skipped DSYNW1(0)

Table 2-2. Data Dictionary - Tape Processor
(page 4 of 7 pages)

Var	Subroutine	Size	Fmt	Description
NPU	TSTNON WSRCD DSYNP1	N/A	I2	The subscript for the request arrays of nonunits indicating a TAEDP match
NRCD	ANYSRC(P) CHKSRC(P)* PIKCTU(P)*	N/A	I2	Temporary table index
NSRC	CHGLST(P)* CHKSRC(P) DSYCT1(P)	N/A	I4	Total number of SRCs processed in CTU file
PERSKP	CHGLST(P)* DSYCT1(P,O)	1,000	I4	The number of personnel change records skipped for each SRC (max 1,000)
POMSKP	CNTLVL(P)* DSYNW1(O)	N/A	I4	Total number of POMCUS units skipped
POSFLD	CHGLST(P)* DSYCT1(P,O)	1,000	I4	The number of LINs for each SRC with a positive change amount (max 1,000)
RALO	RDRQST TSTBIL	99	A1	ALO of requested billpayer unit
RBR	RDRQST TSTBIL DSYNP2	99	A2	Branch of requested bill-payer unit
RCDTYP	CHKEQP(P) PIKCHG(P) PIKNEW(P) RDRCD(I)*	N/A	A1	The type of the TAEDP record (A, B, C)
RCLAIM	RDRQST TSTBIL DSYNP1	99	A21	Claimant of selected non-programed unit
RCODE	RDRQST WSRCD	2,99	A2	Four leftmost digits of new UIC for selected nonprogramed units
RDAMPL	RDRQST TSTBIL DSYNP2	2,99	I5	DAMPL of requested billpayer unit

Table 2-2. Data Dictionary - Tape Processor
(page 5 of 7 pages)

Var	Subroutine	Size	Fmt	Description
RDATE	None RDRQST WRNONA DSYNP1	99	I2	Effective date for selected nonprogramed units
RECORD	ANYSRC(P) KQPCHE(P) CHKSRC(P) DECODE(I) PIKNEW(P) RCRCD(I)* WRCTT(P) WRRCD(O)	N/A	A239	The TAEDP input record
RID	RDRQST DSYNP1 TSTNON	99	A6	UIC of requested nonprogramed unit
RMACOM	RDRQST TSTBIL DSYNP2	99	A3	Rightmost three digits of major command of requested billpayer unit
RRNG	RDRQST TSTBIL DSYNP2	99	I5	Range of requested billpayer unit
RUNCLS	MAIN(I)* WRTTL(O)	N/A	A12	The classification of the run
SAVRCD	ANYSRC(P) CHKSRC(P)*	7	A239	Used to preserve up to seven A-RECORDS during CTU processing
SKPLVL	ANYSRC(P)* MAIN(P) PIKCHG(P)* PIKACT(P)*	2	A6	Used to preserve a unit ID already determined as one to be skipped. First element preserves ID for activated unit processing. Second element preserves ID for CTU unit processing
SPCLST	MAIN(I,P)* PIKSPC(P)	N/A	A3	A "YES" or "NO" flag for the Special List function

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Table 2-2. Data Dictionary - Tape Processor
(page 6 of 7 pages)

Var	Subroutine	Size	Fmt	Description
SRC	CHKSRC(P) DECODE(I)*	N/A	A9	The SRC from the TAEDP record
SRCFY	ANYSRC(P) CHKEQP(P) CHKSRC(P)* ENCOD(O) PIKCTU(P)	7 ·	I	Used to save SRC number of an SRC match, by fiscal year
SRCHLD	TSTBIL DSYNP2	99	A9	TAEDP SRC, positions 185-193 of matching record
TAEDPA	PIKNON TSTBIL WRNONA	7	A239	Array of A-RECORDS for the current unit
TDASKP	CNTLVL(P)* DSYNW1(O)	N/A	I4	Count of the TDA units skipped
TMPLIN	CHGLST(I,P)* WRNMSG(O)	N/A	A6	The LIN from the CTU record
TMPSRC	CHGLST(I,P)* WRNMSG(O)	N/A	A9	The SRC from the CTU record
TOEFLD	CNTLVL(P)* DSYNW1(O) DSYNW2(O)	N/A	I4	The number of TOE units selected
TOESKP	CNTLVL(P)* DSYNW1(O)	N/A	I4	The number of TOE units skipped
TRCORD	CHKEQP(P) ENCOD(O) WRCTU(P,O)	N/A	A239	The T-RECORD with equipment change amounts
TYPBLP	RDRQST TSTBIL DSYNP2	99	A1	Type billpayer requested, 'U' (UIC), 'T' (TOE), 'S' (SRC)
TYPRCD	PIKNON	N/A	A1	Position 34 of TAEDP record type: A, B, C, or D

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Table 2-2. Data Dictionary - Tape Processor
(page 7 of 7 pages)

Var	Subroutine	Size	Fmt	Description
TYPUNT	DECODE(I)* DSYALL(P) PIKCHG(P) PIKNEW(P)	N/A	I1	The unit type from the TAEDP record
UICHLD	RDRQST PIKNON	N/A	A6	Holds the UIC of the current unit. Used as a flat for the first/next unit
UNTFY	CNTUFY(P)* DSYNW2(O) DSYNW3(P)	7	I	Number of units processed in each fiscal year
UNTID	CNTUFY(P)* DSYNW3(O) MAIN(P)	(7x400)	A6	The unit IDs for activated units selected from TAEDP for each fiscal year for up to 400 units
UNTTST	PIKNON	N/A	I2	=1 means test new/next unit =2 means match of nonunit or billpayer, process unit =3 means no match, do not process unit
WRNCNT	CHGLST(P) MAIN(P) WRNMSG(P)*	N/A	I1	The number of warning messages generated
WRNPAS	CHGLST(P) MAIN(I)*	N/A	A3	A "YES" or "NO" flag signifying warning message bypass
XFRLVL	PIKACT(P) PIKCON PIKSPC	N/A	A6	A unit ID to be output
ZROFLD	CHGLST(P)* DSYCT1(O,P)	N/A	I4	The number of equipment deletions

NOTES:
    The letter (P, I, O) next to the subroutine names denotes the usage of the table as follows: (P) - processing, (I) - input, (O) - output
    An asterisk (*) occurring to the right of the routine name indicates that the table is originated by that routine.
    The letter (A, I) in the format column of the table denotes the array characteristics as follows: (A) - alphanumeric, (I) - integer

```
                                                          PAGE 1
                              TAPE PROCESSOR RUN          DATA DATE:  TESTDATA
                                                          REPT DATE:  10/12/83
EDATE MODEL
DISPLAY TP / 1/                  UNIT SUMMARY


                         *****   UNCLASSIFIED   *****


                  NR UNITS ACTIVATED IN FY 83 THRU FY 89
```

TOTAL UNITS READ	TOTAL TOE FILED	TOTAL NON SKIPPED	TOTAL TOE SKIPPED	TOTAL AUG TOE SKIPPED	TOTAL TDA SKIPPED	TOTAL POM SKIPPED
150	95	0	55	0	0	0

```
                         *****   UNCLASSIFIED   *****
```

Figure 2-6. Report #1, Unit Summary

```
EDATE MODEL                    TAPE PROCESSOR RUN        PAGE 1
DISPLAY TP / 2/                                          DATA DATE:  TESTDATA
                                  FY SUMMARY             REPT DATE:  10/12/83


                           *****   UNCLASSIFIED   *****


                         NR UNITS ACTIVATED IN EACH FY
```

TOTAL UNITS FILED	TOTAL FY 83 FILED	TOTAL FY 84 FILED	TOTAL FY 85 FILED	TOTAL FY 86 FILED	TOTAL FY 87 FILED	TOTAL FY 88 FILED	TOTAL FY-89 FILED
95	50	14	5	10	7	2	7

```
                           *****   UNCLASSIFIED   *****
```

Figure 2-7. Report #2, FY Summary

```
EDATE MODEL                 TAPE PROCESSOR RUN          PAGE 1
DISPLAY TP / 3/                                         DATA DATE:  TESTDATA
                                UNITS FILED             REPT DATE:  10/12/83


                        *****   UNCLASSIFIED   *****



                        UNITS ACTIVATED IN EACH FY

   FY 83        FY 84       FY 85       FY 86       FY 87       FY 88       FY 89
   FILED        FILED       FILED       FILED       FILED       FILED       FILED

   UNT050       UNT002      UNT010      UNT004      UNT006      UNT021      UNT001
   UNT052       UNT003      UNT014      UNT008      UNT007      UNT043      UNT005
   UNT054       UNT022      UNT019      UNT012      UNT011                  UNT009
   UNT056       UNT023      UNT030      UNT018      UNT015                  UNT013
   UNT058       UNT025      UNT037      UNT020      UNT033                  UNT016

   UNT060       UNT026                  UNT024      UNT036                  UNT017
   UNT062       UNT029                  UNT028      UNT068                  UNT034
   UNT064       UNT032                  UNT035
   UNT066       UNT038                  UNT040
   UNT070       UNT039                  UNT044

   UNT072       UNT041
   UNT074       UNT042
   UNT076       UNT045
   UNT078       UNT046
   UNT080

   UNT082
   UNT084
   UNT086
   UNT088
   UNT090
   UNT092
   UNT094
   UNT096
   UNT098
   UNT100

   UNT102
   UNT104
   UNT106
   UNT108
   UNT110

                        *****   UNCLASSIFIED   *****
```

Figure 2-8.   Report #3, Units Filed

EDATE MODEL
DISPLAY TP / 4/

TAPE PROCESSOR RUN
CCT SRC SUMMARY

DATA DATE: TESTDATA   PAGE 1
REPT DATE: 10/12/83

***** UNCLASSIFIED *****

EQUIPMENT/PERSONNEL RECORDS BY SRC IN CCT 300-73

NR	SRC	INCR FLD	DECR FLD	DROP FLD	TOT FLD	PER SKP	ADD SKP	TOT SCN	TOT OVR	NR	SRC	INCR FLD	DECR FLD	DROP FLD	TOT FLD	PER SKP	ADD SKP	TOT SCN	TOT OVR
1	0117H700	0	0	0	0	0	1	1	0	2	0127H100	0	0	0	0	0	11	11	0
3	0137H100	0	0	0	0	0	1	1	0	4	0122H700	0	0	0	0	0	3	3	0
5	0122H701	0	0	0	0	0	3	3	0	6	0122J200	0	0	0	0	0	3	3	0
7	0123H700	0	0	0	0	0	2	2	0	8	0123J200	0	0	0	0	0	2	2	0
9	0123J201	0	0	0	0	0			0	10	0123J205	0	0	0	0	0	1	1	0
11	0125H700	0	0	0	0	0	6	6	0	12	0125J200	0	0	0	0	0	6	6	0
13	0126H700	0	0	0	0	0	6	6	0	14	0126J200	0	0	0	0	0	6	6	0
15	0127H700	0	0	0	0	0	1	1	0	16	0127J200	0	0	0	0	0	2	2	0
17	0127J201	0	0	0	0	0	4	4	0	18	0127J203	0	0	0	0	0	1	1	0
19	0127J204	0	0	0	0	0	1	1	0	20	0127J205	0	0	0	0	0	1	1	0
21	0127H900	0	0	0	0	0	7	7	0	22	0285J210	0	0	0	0	0	33	34	0
23	0126J210	0	1	0	1	0	2	3	0	24	0287J200	0	0	0	0	0	10	10	0
25	0150H2FC	0	0	0	0	0	8	8	0	26	0150H2FD	0	0	0	0	0	7	7	0
27	0150H2FE	0	0	0	0	0	7	7	0	28	0150H2FF	0	0	0	0	0	7	7	0
29	0150H2FH	0	0	0	0	0	8	8	0	30	0150H2FI	0	0	0	0	0	6	6	0
31	0150H2FK	0	0	0	0	0	1	1	0	32	0152U2AA	0	0	0	0	0	1	1	0
33	0152U2AB	0	0	0	0	0	1	1	0	34	0303H200	0	0	0	0	0	4	4	0
35	0306J100	0	0	0	0	0	3	3	0	36	0308J000	0	0	0	0	0	4	4	0
37	0310H000	0	0	0	0	0	2	2	0	38	0350H2LA	0	0	0	0	0	6	6	0
39	0350H2NA	0	0	0	0	0	1	1	0	40	0502H300	0	0	0	0	0			0
41	0502H300	0	0	0	0	0	5	5	0	42	0502H300	0	0	0	0	0			0
43	0503H500	0	1	0	1	0	12	13	1	44	0503H500	0	1	0	1	0	10	11	1
45	0503H500	0	0	0	0	0	4	4	0	46	0504H100	0	0	0	0	0	11	11	0
47	0504H100	0	0	0	0	0	8	8	0	48	0504H100	0	1	0	1	0	7	7	1
49	0505H600	0	0	0	0	0	12	12	0	50	0505H300	0	1	0	1	0	8	8	1
51	0505H500	0	0	0	0	0	3	3	0	52	0505H501	0	0	0	0	0	3	3	0
53	0505H400	0	0	0	0	0	3	3	0	54	0506H200	0	0	0	0	0	11	11	0
55	0506H300	0	0	0	0	0	2	2	0	56	0507H400	0	0	0	0	0	3	3	0
57	0507H200	0	0	0	0	0	1	1	0	58	0507H200	0	0	0	0	0	4	4	0
59	0507J200	0	0	0	0	0	2	2	0	60	0507H200	0	0	0	0	0	3	3	0

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Figure 2-9. Report #4, CCT SRC Summary

```
EDATE MODEL                        TAPE PROCESSOR RUN              DATA DATE: TESTDATA      PAGE 1
DISPLAY TP / 5/                      UNITS SCANNED                 REPT DATE: 10/12/83


                                 *****  UNCLASSIFIED  *****


                               UNITS PRESENT IN TAEDP FILE

UNT001 189  UNT002 184  UNT003 184  UNT004 186  UNT005 189  UNT006 187  UNT007 187  UNT008 186  UNT009 189  UNT010 185
UNT011 187  UNT012 186  UNT013 189  UNT014 185  UNT015 187  UNT016 184  UNT017 189  UNT018 186  UNT019 185  UNT020 186
UNT021 186  UNT022 184  UNT023 184  UNT024 186  UNT025 184  UNT026 184  UNT027 183  UNT028 186  UNT029 184  UNT030 185
UNT031 183  UNT032 184  UNT033 187  UNT034 189  UNT035 186  UNT036 187  UNT037 185  UNT038 184  UNT039 184  UNT040 186
UNT041 184  UNT042 184  UNT043 188  UNT044 186  UNT045 184  UNT046 184  UNT047 183  UNT048 183  UNT049 183  UNT050 183

UNT051 183  UNT052 183  UNT053 183  UNT054 183  UNT055 183  UNT056 183  UNT057 183  UNT058 183  UNT059 183  UNT060 183
UNT061 183  UNT062 183  UNT063 183  UNT064 183  UNT065 183  UNT066 183  UNT067 183  UNT068 187  UNT069 183  UNT070 183
UNT071 183  UNT072 183  UNT073 183  UNT074 183  UNT075 183  UNT076 183  UNT077 183  UNT078 183  UNT079 183  UNT080 183
UNT081 183  UNT082 183  UNT083 183  UNT084 183  UNT085 183  UNT086 183  UNT087 183  UNT088 183  UNT089 183  UNT090 183
UNT091 183  UNT092 183  UNT093 183  UNT094 183  UNT095 183  UNT096 183  UNT097 183  UNT098 183  UNT099 183  UNT100 183

UNT101 183  UNT102 183  UNT103 183  UNT104 183  UNT105 183  UNT106 183  UNT107 183  UNT108 183  UNT109 183  UNT110 183
UNT111 183  UNT112 183  UNT113 183  UNT114 183  UNT115 183  UNT116 183  UNT117 183  UNT118 183  UNT119 183  UNT120 183
UNT121 183  UNT122 183  UNT123 183  UNT124 183  UNT125 183  UNT126 183  UNT127 183  UNT128 183  UNT129 183  UNT130 183
UNT131 183  UNT132 183  UNT133 183  UNT134 183  UNT135 183  UNT136 183  UNT137 183  UNT138 183  UNT139 183  UNT140 183
UNT141 183  UNT142 183  UNT143 183  UNT144 183  UNT145 183  UNT146 183  UNT147 183  UNT148 183  UNT149 183  UNT150 183


                                 *****  UNCLASSIFIED  *****
```

Figure 2-10. Report #5, Units Scanned

```
EDATE MODEL                    TAPE PROCESSOR RUN          DATA DATE: TESTDATA      PAGE 1
DISPLAY TP / 6/                CCT UNITS SUMMARY           REPT DATE: 10/20/83

                          *****  UNCLASSIFIED  *****

                          UNITS IMPACTED BY CCT 300-73

UNT002  UNT003  UNT004  UNT005  UNT008  UNT011  UNT012  UNT019  UNT021  UNT022
UNT023  UNT024  UNT026  UNT027  UNT028  UNT029  UNT031  UNT034  UNT035  UNT039
UNT040  UNT042  UNT045  UNT048  UNT051  UNT052  UNT053  UNT054  UNT055  UNT058
UNT059  UNT060  UNT061  UNT062  UNT063  UNT064  UNT065  UNT066  UNT069  UNT070
UNT071  UNT072  UNT073  UNT074  UNT076  UNT077  UNT078  UNT079  UNT080  UNT081

UNT082  UNT084  UNT085  UNT086  UNT087  UNT088  UNT089  UNT090  UNT091  UNT092
UNT093  UNT094  UNT095  UNT096  UNT097  UNT098  UNT099  UNT100  UNT101  UNT103
UNT104  UNT105  UNT106  UNT107  UNT108  UNT109  UNT110  UNT111  UNT112  UNT113
UNT114  UNT115  UNT116  UNT117  UNT118  UNT119  UNT120  UNT121  UNT122  UNT123
UNT124  UNT125  UNT127  UNT128  UNT129  UNT130  UNT132  UNT133  UNT134  UNT135

UNT136  UNT137  UNT138  UNT139  UNT140  UNT141  UNT142  UNT144  UNT145  UNT146
UNT147  UNT148  UNT150

                          *****  COMMAND COUNTS  *****
                                 CMDTOT= 113

                          *****  UNCLASSIFIED  *****

STF= 0  EUR= 29  KOR= 7  PAC= 0  ALA= 0  HAM= 6  PAN= 0  FC= 49  TC= 0  OTH= 0  NG= 8  AR= 14  DAR= 0
```

Figure 2-11. Report #6, CCT Unit Summary

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2.4.1 Program Description

a. Identification

Tape Processor - MAIN

b. Functions. This program controls the processing of the Tape Processor. The functions performed include reading the Run Control Parameters input by the user, reading the TAEDP input tapes, and comparing the TAEDP input to the run control parameters for selection purposes. Once all of the desired units have been extracted from the TAEDP file and written to output, a series of six summary reports is produced and processing is ended.

c. Input. This process requires the following files as input:

- Run Control Parameter File (MTOE*DTACTL01); Unit-2
- Prototype Units (MTOE*DTACTL02); Unit-4
- Billpayer Units (MTOE*DTACTL03); Unit-8
- TAEDP File (MTOE*MT003041); Unit-7
- Special Unit List (MTOE*DTACTL04); Unit-8
- Consolidated TOE Update File (MTOE*MTOCTU00); Unit-9
- Common blocks - XCONTRL, XINPUT, XSUMLVL

Note: More detailed information on these files is contained in Section 3, subparagraph 3.3, Data Base.

d. Processing. The basic code of the MAIN program has been modified into 3 varients each of which processes different units in the TAEDP tape as follows:

MAIN/CHG - processes units impacted by the CTU

MAIN/MLT - processes unit activations, unit conversions, and special units

MAIN/NON - processes unprogramed units

The purpose and effect of the varients is to minimize the mapped size of the overall program by including in the executable element only those program units appropriate to the type of units being processed.

The processing carried out by each varient is described in the following sections.

MAIN/CHG

- Establish a print file in lieu of Unit-6
- Read in run control parameters
- Declassify run if test data is used, as indicated by a value of "TESTDATA" set into variable "DTADTE"

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- Compute set of FY years for run
- Read in list of CTU changes and display summary of changes
- Initialize display of all units in file
- Initialize display of all units impacted by CTU
- Read in each tape record, in turn
- Test each record for association with changed (CTU) unit
- Close out display of all units
- Close out display of units impacted by CTU and summary of CTU input
- Test if warning messages present and, if so, indicated in the termination message

MAIN/MLT

- Establish a print file in lieu of Unit-6
- Read in run control parameters
- Declassify run if test data is used, as indicated by a value of "TESTDATA" set into variable "DTADTE"
- Read in user list of special units for processing
- Compute set of FY years for run
- Initialize dsiplay of all units in file
- Read in each tape record, in turn
- Test if unit ID has changed
- Test each record for association with activated (new) unit
- Test each record for association with converted unit
- Test each record for association with special unit until all units have been matched
- Close out display of all units
- Display summaries of activated units processed
- Display summaries of converted units processed
- Display summaries of special units processed
- Test if warning messages present and, if so, indicated in the termination message

MAIN/NON

- Establish a print file in lieu of Unit-6
- Read in run control parameters
- Declassify run if test data is used, as indicated by a value of "TESTDATA" set into variable "DTADTE"
- Read in user requests for nonprogramed units and billpayer units
- Compute set of FY years for run
- Read in each tape record, in turn
- Test if unit ID has changed
- Test each record for association with nonprogramed unit
- Close out display of all units
- Display summaries of nonprogramed units processed
- Test if warning messages present and, if so, indicated in the termination message

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   e. Output. The following outputs are produced by the Tape Processor:

    • Activated Unit File (MTOE*TP3ACT40); Unit-11.
    • CTU Unit File (MTOE*TP3CHG40); Unit-12.
    • Unprogramed Unit File (MTOE*TP3NON40); Unit-14.
    • Converted Unit File (MTOE*TP3CON40); Unit-15.
    • Special Unit File (MTOE*TP3SPC40); Unit-19.
    • Unit Summary Report (Report #1); refer to Figure 2-6 for
      sample.
    • FY Summary Report (Report #2); refer to Figure 2-7 for sample.
    • Units Filed Report (Report #3); refer to Figure 2-8 for sample.
    • CTU SRC Summary Report (Report #4); refer to Figure 2-9 for
      sample.
    • Units Scanned Report (Report #5); refer to Figure 2-10 for
      sample.
    • CTU Unit Summary Report (Report #6); refer to Figure 2-11 for
      sample.
    • New Unit Summary (Report #7); see Figure 2-12.
    • Billpayer Summary (Report #8); see Figure 2-13.

Note: More detailed information on the output files and reports is
contained in subsection 3.3, Data Base.

   f. Interfaces. Since this is the controlling module, no other
      program calls MAIN.

      This program calls the following subroutines. The arguments are
      shown in parentheses.

      CHGLST
      DECODE ("A")
      DSYALL ("FRST") ("NEXT") ("LAST")
      DSYCT1
      DSYCT2 ("FRST") ("LAST")
      DSYFY1 ("1") ("2") ("3")
      DSYFY2 ("1") ("2") ("3")
      DSYNP1 ("FRST") ("NEXT") ("LAST")
      DSYNP2 ("FRST") ("NEXT") ("LAST")
      DSYNW1
      DSYNW2
      DSYNW3
      PAGADV
      PIKACT
      PIKCHG
      PIKCON
      PIKNON
      PIKSPC
      RDRCD (*200)

   g. Tables and Items. Please refer to Table 2-2 for the Data
      Dictionary.

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2.4.2 Program Description

a. Identification

Tape Processor - ANYSRC (*, *)

b. Functions. This subroutine tests whether SRC changes are present
for a unit after all A-RECORDS have been examined. The table
SRCFY is examined to check if any value is greater than zero, thus
representing that an A-RECORD from the TAEDP was found in the CTU.

c. Input. Common blocks XCONTRL, XRCD, XSRCSAV

d. Processing. The processing of ANYSRC is described as follows:

● Search the SRCFY table to see if any entries are greater than
zero. Each entry will represent the index number of the SRC
from the CTU file when a match was found with the TAEDP record.
If all entries are zero, then no match was found for any of the
seven TAEDP "A" records.
● If SRCSUM >0, then (at least one of the "A" records matched
the CTU).
● Call DSYCT2 to write the unit to Report #6.
● Update the "A" record with a "1" in position 14.
● Call WRRCD to write the record to the CTU Unit File.
● Return 1 to signify that a match was found.
● If SRCSUM = 0, then there were no matches, and return 2 to
signify no match.

e. Output. The TAEDP record is prepared for output to Unit 12 (CTU
Unit File) by moving a "1" to position 14.

f. Interfaces

Called by: PIKCTU

Calls to: DSYCT2 ("NEXT")
           WRRCD (12, *180)

g. Arguments. Two arguments are passed to this subroutine. Each
argument controls a numbered return in the calling routine and is
represented by an asterisk (*).

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

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2.4.3 <u>Program Description</u>

    a. Identification

       Tape Processor - CHGLST

    b. Functions. This subroutine loads the CTU file tape into a table
       for subsequent processing. The table CHGSRC is loaded with all of
       the SRCs from the CTU up to a maximum of 1,000.

    c. Input

      • The Consolidated TOE Update (CTU) Data (Unit-9) is read in this
        subroutine. Additional information on this file may be found
        in Section 3, subparagraph 3.3, Data Base.
      • Common blocks XCONTROL, XINPUT, XSRCCNT, XSRCDTA, XSRCTMP.

    d. Processing. The processing of CTULST is described as follows:

      • (Label 100); read a CTU record.
      • If the maximum number of SRCs has already been loaded and the
        SRC is the same as the previous record, go to label 100 to read
        the next record.
      • If the SRC is new
        • Same equipment count for previous SRC.
        • If number of SRCs read exceeds 1,000:
          • Write a warning message.
          • Reset the SRC hold variable.
          • Go to label 100 to read next record.
      • If the CTU record type - "C" indicating a personnel record, not
        an equipment record, then increment a counter and go to label
        100.
      • Convert the least significant digit of the equipment change
        amount.
      • If change amount conversion is unsuccessful, read the next
        record at label 100.
      • If more than 20 equipment records have been processed for the
        SRC, print a warning message and go to label 100.
      • Increment counter for type of equipment change (increase,
        decrease, or elimination).
      • Store counters, write an end of processing message, and return.

    e. Output. None.

    f. Interfaces

       Called by: MAIN

       Calls to: WRNMSG (3) (4)
              XLATE (change amount, change letter, returned amount,
              *100)

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g. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

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2.4.4 Program Description

a. Identification

   Tape Processor - CHKEQP

b. Functions. This subroutine is referenced for those TAEDP units whose SRC was located in the CTU file. The purpose of this subroutine is to process the "B" records and "C" records from the TAEDP for these selected CTU related units.

c. Input

   Common blocks XCONTRL, XRCD, XSRCDTA, XSRCSAV

d. Processing. The processing of CHKEQP is described as follows:

   ● If record type = "B" (sets of "B" and "C" records will follow the 7 "A" records on the TAEDP tape):
     ● Extract LIN (equipment identifier) from TAEDP record.
       ● If LIN has not changed, write the record immediately by going to label 95.
       ● If LIN has changed:
         ● Extract ERC from TAEDP.
         ● If ERC is not = "A", then return.
         ● For each fiscal year
           ● If SRC is the same as previous year, then call ENCODE to write change amount to the T-RECORD.
           ● Else if new SRC, compare equipment item number and call ENCOD.
     ● (Label 95); call WRRCD (12, *100) to write the TAEDP record to the CTU Unit File.
     ● Call WRCTU (12) to write the T-RECORD for the previous SRC.
   ● If a C-RECORD is found immediately after a B-RECORD and the equipment item is the same on each record, then call WRRCD (12, *200) to write the C-RECORD to the file.

e. Output. Calls WRRCD and WRCCT to control the creation of the CTU Unit File.

f. Interfaces

   Called by: PIKCTU

   Calls to: ENCODE (fiscal year index)
               WRCTU (12,*)
               WRRCD (12,*)

g. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.5 Program Description

a. Identification

Tape processor - CHKSPC

b. Functions. This subroutine accesses a list of special units input
via "RDSPC" and tests whether the unit ID of the current record is
a member of this list, and if so, flags the unit for processing to
the special unit output file.

c. Input

Common blocks XCONTRL, XINPUT

d. Processing. This subroutine tests the unit ID against those IDs
in the special unit test. If a match is found,

- Increase the special unit counter by one

- Return

If a match is not found in list, take numbered return.

e. Output

Method of return, i.e., in-line or numbered

f. Interfaces

Called by: PIKSPC

Calls to: none

g. Arguments

A return via the numbered return corresponds to a failure to
achieve a match.

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

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2.4.6 Program Description

a. Identification

   Tape Processor - CHKSRC

b. Functions. This subroutine tests the SRC of a TAEDP unit against the SRC in the CTU File in order to file a match. The function of this subroutine is similar to CHKLST which tests the TAEDP unit ID against the file of new activations.

c. Input

   Common blocks XCONTRL, XINPUT, XRCD, XSRCDTA, XSRCSAV

d. Processing. The processing of CHKSRC is described as follows:

   ● If SRC = SRC from previous TAEDP record:
     ● Load the CTU index number for that SRC into SRCFY (fiscal year index) table.
     ● Save record into SAVRCD table and return.
   ● Search CTU File for match with TAEDP SRC. If a match is found:
     ● Load SRC index number into SRCFY table.
     ● Load TAEDP record into SAVRCD table.
     ● Return.
   Else, Return

e. Output. None.

f. Interfaces

   Called by: PIKCTU

   Calls to: None

g. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.7 <u>Program Description</u>

    a. Identification

        Tape Processor - CNTLVL (ITYPE)

    b. Functions. This subroutine counts the number of different types
        of units read from the TAEDP during processing. The unit type is
        passed as an argument, and the proper counter is incremented
        according to the argument value.

    c. Input

        Common blocks XCONTRL, XSUMLVL

    d. Processing. The processing of CNTLVL is described as follows:

- If ITYPE = 0
  Add 1 to counter for nonunits skipped.
- If ITYPE = 1
  Add 1 to counter for "TOE" units skipped.
- If ITYPE = 2
  Add 1 to counter for "AUG" units skipped.
- If ITYPE = 3
  Add 1 to counter for "TDA" units skipped.
- If ITYPE = 4
  Add 1 to counter for "POM" units skipped.
- If ITYPE = 5
  Add 1 to counter for "TOE" units saved.

    e. Output. None.

    f. Interfaces

        Called by: PIKNEW

        Calls to: None

    g. Arguments

        ITYPE - The TAEDP record type designation

    h. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary.

2.4.8 <u>Program Description</u>

    a. Identification

        Tape Processor - CNTUFY

    b. Functions. This subroutine counts the number of selected TOE
        units activated each fiscal year. The unit ID of all selected
        units is also preserved.

    c. Inputs

        Common blocks XCONTRL, XINPUT, XSUMLVL

    d. Processing. The processing of CNTUFY is described as follows:

        ● Add 1 to the UNTFY table for number of units selected for that
          fiscal year.
        ● Store the unit ID of the selected unit in the table UNTID
          subscripted by year and unit index number.

    e. Outputs. None.

    f. Interfaces

        Called by: PIKACT

        Calls to: None

    g. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary.

2.4.9 Program Description

a. Identification

Tape Processor - DECODE (LTR)

b. Functions. This subroutine utilizes the FORTRAN command DECODE to move certain portions of the TAEDP record to variables for fiscal year, unit type, and system readiness code.

c. Inputs

Common blocks XCONTRL, XRCD

d. Processing. The processing of DECODE is described as follows:

- If the parameter = "A":
  - Extract ACTRY (fiscal year) from columns 46-47.
  - Extract TYPUNT (unit type) from column 110.
  - Extract SRC (system readiness code) from columns 185-193.
  - Return.
  Else, Return.

e. Output. None.

f. Interfaces

Called by: MAIN
            PIKCTU
            PIKACT
            RDRCD

Calls to: None

g. Arguments

LTR - A flag, usually with the value of "A", signifying the record type to be decoded.

h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.10 <u>Program Description</u>

    a. Identification

       Tape Processor - DSYALL (STATUS)

    b. Functions. This subroutine controls the printing of the Units
       Scanned Report (#5). The UIC, unit type, and first fiscal year of
       each unit read on the TAEDP file is printed. All units are
       printed in sets of 10 per line.

    c. Inputs

       Common block XCONTRL

    d. Processing. The processing of DSYALL is described as follows:

- If the STATUS parameter = FRST":
  - Call DSYCTL (5) to print the page header.
  - Return.
- If the STATUS parameter = "NEXT":
  - Accumulate unit information into print holding tables.
  - If 10 units have been accumulated, print the detail line on the printer.
  - Return.
- If the STATUS parameter = "LAST":
  - Print the final detail line.
  - Return.

    e. Outputs

- Calls DSYCTL to print Report #5 page headers.
- Writes a detail line for every 10 units for Report #5.
- Calls DSYCTL to control formatting of detail lines on the page.

    f. Interfaces

       Called by: MAIN ("FRST") ("NEXT") ("LAST")

       Calls to: DSYCTL (5)

    g. Arguments

       STATUS - Signifies the sequencing of the detail lines being
       written, where

          "FRST" - first line printed
          "NEXT" - intermediate lines printed
          "LAST" - last line printed

    h. Tables and Items. Please refer to Table 2-2 for the Data
       Dictionary.

2.4.11 Program Description

a. Identification

Tape Processor - DSYCTL (DSYNR)

b. Functions. This subroutine controls the formatting of the detail
lines in the six reports generated by the Tape Processor. The
lines are grouped into blocks, and the number of lines per block
and the number of blocks per page are established separately for
every report.

c. Inputs. None.

d. Processing. The processing of DSYCTL is described as follows:

● Assume a continuation of the previous report if DSYNR has not
  changed.
● If a new report:
  ● Call WRTTL (DSYNR, 1) to print first page headers.
  ● Return.
● If the maximum number of lines per block has been reached:
  ● Write a blank line and reinitialize counters.
  ● Return.
● If the maximum number of blocks per page has been reached:
  ● Increment page counter and call WRTTL.
  ● Return.

e. Outputs

● Calls WRTTL (report #, page #) to print page headers.
● Prints blank lines to separate blocks of lines.

f. Interfaces

Called by: DSYALL (5)
            DSYCT1 (4)
            DSYCT2 (6)
            DSYNW1 (1)
            DSYNW2 (2)
            DSYNW3 (3)

Calls to: WRTTL (report #, page #)

g. Arguments

DSYNR - The report number (value of 1-6)

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

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2.4.12 Program Description

a. Identification

Tape Processor - DSYCT1

b. Functions. This subroutine prints the text of Report #4, the CTU SRC Summary.

c. Input

Common blocks XSRCCNT, XSRCDTA

d. Processing. The processing of DSYCT1 is described as follows:

- Print two SRCs per block for every SRC on the TAEDP that matched the CTU file.

- On every detail line, print the following items for each SRC displayed:
  - Number of equipment increases.
  - Number of equipment decreases.
  - Number of equipment eliminations.
  - Total number of equipment records selected.
  - Total number of records skipped where type = "C".
  - Total number of records skipped where a new piece of equipment was being added.
  - Total number of equipment records scanned.
  - Total number of equipment records over the limit of 30 per SRC.

e. Output. Prints the detail lines of Report #4, the CTU SRC Summary.

f. Interfaces

Called by: MAIN

Calls to: DSYCTL (4)

g. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.13 Program Description

a. Identification

Tape Processor - DSYCT2 (STATUS)

b. Functions. This subroutine generates Report #6, the CTU Unit Summary.

c. Input

Common block XCONTRL

d. Processing. The processing of DSYCT2 is described as follows:

- If STATUS = "FRST":
  - Call DSYCTL(6) to print page headers
  - Return
- If STATUS = "NEXT":
  - Accumulate unit information into print holding table.
  - If 10 units have been accumulated, print the detail line on file 16.
  - Return.
- If STATUS = "LAST", print the final detail line and return.

e. Output

Calls DSYCTL(6) to print headers and format lines for Report #6. Writes the detail lines of Report #6.

f. Interfaces

Called by: ANYSRC
            MAIN

Calls to: DSYCTL(6)

g. Arguments

STATUS - Signifies the sequencing of the detail lines being written, where

> "FRST" - first line printed
> "NEXT" - intermediate lines printed
> "LAST" - last line printed

h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.14 <u>Program Description</u>

    a. Identification

        Tape Processor - DSYFY1

    b. Functions. This program displays the results of the Tape
        Processor run by summarizing the number of units processed, by FY

    c. Input

        Common block XSOMLVL, XDSYTXT, XAPF

    d. Processing. The processing of DSYFY1 is described as follows:

        ● Set value of display text variable
        ● Initialize unit counter
        ● Print display header
        ● Compute total units processed over FY
        ● Print count data
        ● Initialize display for subsequent use

    e. Output

        Tape Processor Report TP/21

    f. Interface

        Called by: MAIN
        Calls to: DSYCTL, WRCLS

    g. Arguments

        INDX - selects text to appear in report header

    h. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary

2.4.15 Program Description

    a. Identification

        Tape Processor - DSYFY2

    b. Functions. This subroutine displays the results of the tape processor run by identifying the codes (UIC) of the units processed, by FY.

    c. Input

        Common blocks XSUMLVL, XDSYTXT, XAFP

    d. Processing. The processing of DSYFY2 is described as follows:

        ● Set value of text variable for use in display header
        ● Compare number of units filed for each FY to determine the max number filed in any FY
        ● Use largest value in loop to print data
        ● Print data
        ● Initialize display for subsequent use

    e. Output

        Tape Processor Report TP/3/

    f. Interfaces

        Called by: MAIN
        Calls to: DSYCTL

    g. Arguments

        INDX - selects text to appear in report header

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.16 <u>Program Description</u>

   a. Identification

      Tape processor - DSYNP1

   b. Functions. This program displays nonprogramed units selected in TSTNON

   c. Input

      Common blocks XNONUNT, XRDC, XCONTRL

   d. Processing. The processing of DSYNP1 is described as follows:

      DSYNR=7

      If the STATUS parameters equal 'FRST', CALL DSYCTL(DSYNR) to print the header on the first page.

      If the STATUS parameter equals 'NEXT', write the following to Unit #17, print file for nonprogramed units:

RID(NPU)	A6	Prototype UIC
NEWID(NPU)	A6	Overlay identification (UIC)
RDATE(NPU)	I2	Effective date of new unit
NDAMPL(NPU)	I5	DAMPL assigned to new unit
RCLAIM(NPU)	A21	Claimant from matching TAEDP unit

      NPU is the pointer for the nonunit request arrays showing match.

      If STATUS parameter is equal to 'LAST', call WRCLS(DSYNR) to print classification at the end of the file.

   e. Output

      Print file Unit-17

   f. Interfaces

      Called by: PIKNON, WSRCD

      Calls to: DSYCTL, WRCLS

   g. Arguments

      Status - 'FRST', 'NEXT', 'LAST'

   h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.17 Program Description

    a. Identification

        Tape processor - DSYNP2

    b. Functions

        This subroutine displays the billpayer units selected in TSTBIL.

    c. Inputs

        Common blocks - XNONUNT, XRCD, XCONTRL

    d. Processing. The processing of DSYNP2 is described as follows:

        DSYNR=8
        If the STATUS parameter equals 'FRST', CALL DSYCTL(DSYNR2) to
        print the header on the first page.

        If the STATUS parameter equals 'NEXT', write the following to
        Unit-18, print file for the selected billpayer units.

            If the user request was for 'S', TYP='SRC'
            If the user request was for 'T', TYP='TOE'
            If the user request was for 'U', TYP='UIC'

CLVL	A6	Positions 1-6 of the TAEDP record
BLPID(BPU)	A9	A specific UIC, SRC, or TOE
RMACOM(BPU)	A3	Major command
RBR(BPU)	A2	Branch
RDAMPL(BPU)	I5	DAMPL
HYPHEN	A1	'-'
RRNG(BPU)	I5	Range
SRCHLD	A9	SRC of the unit on the A-RECORD

        BPU is the pointer for the billpayer request arrays showing match

        If the STATUS parameter is equal to 'LAST', CALL WRCLS(DSYNR) to
        print classification at the end of the file.

    e. Output

        Print file Unit-18

    f. Interfaces

        Called by: PIKNON, WRBLPA, WRBLP

        Calls to: DSYCTL, WRCLS

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g. Arguments

Status - 'FRST,' 'NEXT,' 'LAST'

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

2.4.18 Program Description

a. Identification

Tape Processor - DSYNW1

b. Functions. This subroutine produces Report #1, the Unit Summary
Report.

c. Input

Common blocks XCONTRL, XSUMLVL

d. Processing. The processing of DSYNW1 is described as follows:

- Call DSYCTL(1) to print report headers.
- Write the report detail line containing the following:
  - IALL - total number of units processed.
  - TOEFLD - total TOE units filed.
  - NONSKP - total nonunits skipped.
  - TOESKP - total units skipped.
  - AUGSKP - total augmented TOE units skipped.
  - TASKP - total TDA units skipped.
  - POMSKP - total POMCUS units skipped.

e. Output

Report #1, the Unit Summary Report.

f. Interfaces

Called by: MAIN

Calls to: DSYCTL(1)

g. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

2.4.19 <u>Program Description</u>

    a.   Identification

        Tape Processor - DSYNW2

    b.   Functions. This subroutine produces Report #2, the FY Summary Report.

    c.   Input

        Common block XSUMLVL

    d.   Processing. The processing of DSYNW1 is described as follows:

        ● Call DSYCTL(2) to print report headers.
        ● Write the report detail line containing the following:
          ● Total TAEDP units filed.
          ● Total units filed for fiscal year 1 through 7.

    e.   Output

        Report #2, the Fiscal Year Summary Report.

    f.   Interfaces

        Called by: MAIN

        Calls to: DSYCTL(2)

    g.   Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.20 Program Description

    a. Identification

        Tape Processor - DSYNW3

    b. Functions. This subroutine produces Report #2, the Units Filed
        Summary Report. All of the units selected from the TAEDP will be
        displayed.

    c. Input

        Common block XSUMLVL

    d. Processing. The processing of DSYNW3 is described as follows:

        ● Extract highest value in UNTFY to determine the maximum number
          of lines to be printed for any fiscal year on the report.
        ● Until all of the unit IDs have been printed, print a detail
          line formatted by fiscal year across the page.

    e. Output

        Report #3, the Units Filed Summary Report.

    f. Interfaces

        Called by: MAIN

        Calls to: DSYCTL

    g. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary.

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2.4.21 Program Description

a. Identification

Tape Processor - ENCOD (IFY)

b. Functions. This subroutine uses the FORTRAN command "ENCODE" to extract the CTU equipment change information from the CHGAMT table into an equipment change record. This equipment change record (T-RECORD) will follow the requirements record (B-RECORD) on the output file.

c. Input

Common blocks XINPUT, XRCD, XSRCDTA, XSRCSAV

d. Processing. The processing of ENCOD is described as follows:

● According to the fiscal year indicated by IFY, place the equipment change amount on the T-RECORD in the following positions:

● Year 1: Positions 130-136.
● Year 2: Positions 146-152.
● Year 3: Positions 162-168.
● Year 4: Positions 178-184.
● Year 5: Positions 194-200.
● Year 6: Positions 210-216.
● Year 7: Positions 226-232.

e. Output

● Values are moved to the T-RECORD which is later written to the CTU Unit File in WRCTU.

f. Interfaces

Called by: CHKEQP

Calls to: None.

g. Arguments

IFY - The fiscal year index

h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.22   Program Description

    a.   Identification

        Tape Processor - PAGADV

    b.   Functions. This subroutine advances the printer to a new page
        after all of the Tape Processor reports have been written, causing
        the termination messages to print on a separate page.

        This subroutine is called by MAIN and simply contains a carriage
        control command for a new page.

        No other information is required for this subroutine.

2.4.23 Program Description

a. Identification

Tape Processor - PIKACT

b. Functions. This subroutine controls the selection of those units read from the TAEDP which can be found in the First Year Activated Unit List.

c. Input

Common blocks XCONTRL, XINPUT, XRCD

d. Processing. The processing of PIKACT is described as follows:

- If unit ID has already been rejected, return.
- If unit ID already accepted by previous pass:
  - If record type = "A", move "1" to position 13 of the record.
  - Call WRRCD (11, *200) to write the record to the newly activated output file. This will write the "B" and "C" records for a selected unit.
- Return.
- Decode record to identify paremeters to select units
- If unit type = "1":
  - If fiscal year = year of activation, test record position 174 to try to select unit, if not selected set flag to skip unit.
  - If fiscal year not = to year of activation:
    - Call CNTUFY to increment fiscal year counters.
    - Call WRRCD (11, *200) to write the record.
  Else:
    - Preserve unit ID in units skipped table.
    - Return.

e. Output

Calls WRRCD to write records to the Activated Unit File.

f. Interfaces

Called by: MAIN

Calls to: CHKLST
           CNTLVL(5) (TYPUNT)
           CNTUFY
           DECODE ("A")
           WRRCD (11,*)

g. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.24   Program Description

a.   Identification

Tape Processor - PIKCHG

b.   Functions. This subroutine uses the SRC from the TAEDP records to
select those records that appear in the CTU. This will select
those units proposed for equipment changes during the 7-year
planning period. The other subroutine used to select records,
PIKNEW, matches the unit against a list of units scheduled for
activation during the 7-year planning period.

c.   Input

Common blocks XCONTRL, XRCD, XSRCSAV

d.   Processing. The processing of PIKCHG is described as follows:

● If unit ID has already been rejected, then skip the record and
return.
● If current record type = "A" and previous type is not "A":
  ● Check for a unit type of 1.
  ● Call CHKSRC to try to match the SRC in the CTU file.
  ● Return.
● If current record type = "A" and previous type = "A":
  ● Call CHKSRC to handle record selection.
  ● Return.
● If current record type is not "A" and previous type = "A":
  ● Call ANYSRC to see if any of the "A" records matched the CTU
    table. If there was not at least one match, all other
    records will be skipped for this unit.
  ● Return.
● If current record type is not "A" and previous record is also
not "A":
  ● Call CHKEQP to check the equipment records for this unit.
  ● Return.

e.   Output. None.

f.   Interfaces

Called by: MAIN

Calls to: ANYSRC (*100, *200)
           CHKEQP
           CHKSRC
           DECODE ("A")

g.   Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

2.4.25 <u>Program Description</u>

    a.   Identification

        Tape Processor - PIKCON

    b.   Functions. This subroutine selects those records from the input
        file corresponding to units converted during the 7-year planning
        period.

    c.   Input

        Common blocks XCONTRL, XINPUT, XRCD

    d.   Processing. The processing of PIKCON is described as follows:

- Test if record is for unit to be skipped
- Test if record is for unit to be transferred directly to
  output. If it is, write record to output file
- The record is a non A-RECORD at this point, which indicates
  completion of unit A-RECORDS. If a converted unit is present
  as indicated by converted unit flag set to one, store current
  non A-RECORD, write all stored A-RECORDS and then write current
  non A-RECORD. Set transfer flag to current unit. If flag is
  not set, set skip-flag to current unit.
- The record at this point is one for a new unit. It is decoded
  to identify the parameters used to select units for transfer to
  output.
- Skip over non-TOE units
- Test for A-RECORD and consider two cases:

      (1)   A-RECORDS followed by R/C-RECORDS
      (2)   A-RECORDS directly followed by A-RECORDS for another unit.

      ... For the case of A-RECORDS followed by B/C-RECORDS, save
      each A-RECORD as it is encountered for possible transfer to
      output, until a determination is made, whether or not unit
      conversions have occurred during the planning period.
      ... For the case of A-RECORDS followed by A-RECORDS, reset the
      converted unit flag to zero and the saved record counter to
      one. Store the current A-RECORD and set the last-level flag to
      current unit.
      ... For both cases, test for a converted unit. If match
      found, set converted unit match flag, call for update of count
      of converted units and store of unit ID.

    e.   Output. Flag set indicating converted unit. Update of count of
        converted units.

f. Interfaces

    Called by: MAIN

    Calls to: CNTUFY
               WRRCD
               DECODE

g. Arguments. None

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

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2.4.26 <u>Program Description</u>

a. Identification

Tape Processor - PIKNON

b. Functions. This subroutine is the driver module for the non-
programed unit enhancement of the E-DATE module. The functions
performed include collecting the A-RECORDS of a unit, testing the
A-RECORDS against user criteria for selecting nonprogramed units,
and/or user criteria for selecting billpayer units. On the basis
of the test(s), the status of the unit is determined: (1) records
for the unit are not processed, (2) records are processed as
nonprogramed units and/or billpayer units. A final function is
writing selected units to print files and to a disk file for
further processing.

c. Input

Common blocks - XRCD, XNONUNT

d. Processing. The processing of PIKNON is described as follows:

● Call DSYNP1 ('FRST') to write page headings for Report #12, the
nonprogramed unit report
● Call DSYNP2 ('FRST') to write page headings for Report #13, the
billpayer unit report
● Identify the first/next unit by the record UIC in positions 1-6
● Accumulate the A-RECORDS for the unit in the TAEDPA array
● Call TSTNON to test the A-RECORDS against the nonprogramed unit
criteria in the user request file, DTACTLO2
● Call TSTBIL to test the A-RECORDS against the billpayer unit
criteria in the user request file, DTACTLO3
● Determine unit status on the basis of switches TSTNON and
TSTBIL
  ● If the unit is a nonprogramed unit:
    ● Call WRNONA to dump the TAEDPA array to Unit-13
    ● Call WRBCD to write the B-RECORDS, the C-RECORDS, and the
    D-RECORDS to Unit-13
  ● If the unit is a billpayer unit:
  ● Call WRBLPA to write information to Unit-18, print file
  ● Call WRBPL to write the B-RECORDS, the C-RECORDS, and the D-
  RECORDS to Unit-14
  ● When a different unit is identified on the basis of UIC:
  ● Call WSRCD to process the unit records in Unit-13 according
  to user request specifications in DTACTLO2

e. Output

f. Interfaces

Called by: MAIN

Calls to: TSTNON   DSYNP1   WRNONA   WRBLPA   WSRCD
           TSTBIL   DSYNP2   WRBCD   WRBLP

g. Arguments: None

h. Tables and Items. Please refer to Table 2-2 for the Data
    Dictionary.

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2.4.27 <u>Program Description</u>

    a. Identification

        Tape Processor - PIKSPC

    b. Functions. This subroutine selects those records from the input file corresponding to a special list of units.

    c. Input

        Common blocks XCONTRL, XINPUT, XRCD

    d. Processing. The processing of PIKSPC is described as follows:

- Test if record is for unit to be skipped
- Test if record is to be transferred directly to output
- The record at this point is one for next unit decode to identify the parameters used to select units for transfer to output.
- Test if the record should be selected for transfer to output based on the unit type and its presence in the special unit list. If the unit is selected, set transfer flag, update FY and control level counts, set "special unit" flag and write-out record. Otherwise set skip-record flag.

    e. Output

        List of special names in SPCLST

    f. Interfaces

        Called by: MAIN

        Calls to: CNTUFY
                  WRRCD
                  DECODE

    g. Arguments. None

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.28 Program Description

    a. Identification

        Tape Processor - RDRCD (*)

    b. Functions. This subroutine reads a TAEDP record (Unit-7) and decodes the unit ID and record type.

    c. Input

        ● Reads the TAEDP tape file sequentially as Unit-7.
        ● Common blocks XCONTRL, XRCD

    d. Processing. RDRCD simply reads a TAEDP record of 239 characters and places positions 1-6 in CTLLVL and position 34 in RCDTYP.

    e. Output. None.

    f. Interfaces

        Called by: MAIN

        Calls to: None

    g. Arguments. An asterisk represents a numbered return in the calling routine.

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.29 <u>Program Description</u>

    a. Identification

        Tape Processor - RDRQST

    b. Functions. This subroutine reads disk file DTACTLO2, containing
        the user specifications for introducing new units into the force
        and reads disk file DTACTLO3, identifying those units in the force
        from which assets are to be taken (the billpayer units) to fill
        the equipment needs of the new units.

    c. Input

        Common block - XNONUNT

    d. Processing. The processing of RDRQST is described as follows:

        Output files are defined: Unit-13, scratch file for storing all
        the records of a unit identified as a nonprogramed unit; Unit-14,
        disk file for both nonprogramed units and billpayer units. This
        file is the interface for additional E-DATE Model processing.

        The following data fields are input from DTACTLO2:

RID(I)	A6	Prototype UIC
IQY(I)	I2	Quantity of new units
RCODE(1,I), RCODE(2,I)	2A2	New identification for unit
RDATE(I)	I2	Effective date for unit
NDAMPL	I5	

        ICNT is the counter for the number of nonunits requested.

        The following fields are input from DTACTLO3:

TYPBLP(I)	A1	Billpayer ID type (UIC, TOE, SRC)
BLPID(I)	A10	UIC, TOE, or SRC identification
RMACOM	A3	Right-justified three digits of MACOM
RALO	A1	ALO
RBR	A2	Unit branch
RDAMPL	I5	DAMPL
RRNG	I5	Range

        JCNT is the counter for the number of billpayer units
        requested.

    e. Output - None

    f. Interfaces

        Called by: MAIN

        Calls to: None

g. Arguments: None

h. Tables and Items. Please refer to Table 2-2 for the Data
    Dictionary.

2.4.30 <u>Program Description</u>

    a. Identification

        Tape Processor - RDSPC

    b. Functions. This subroutine reads in a list of user identified
        special units.

    c. Input

        ● Common block XINPUT
        ● Unit-10

    d. Processing. A formatted read is made of each record containing a
        special unit ID. The read terminates when the end of the input
        file is reached.

    e. Output

        Common block XINPUT

    f. Interfaces

        Called by: MAIN

        Calls to: None

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary.

2.4.31 Program Description

a. Identification

Tape Processor - TSTBIL

b. Functions. This subroutine tests the current TAEDP record against information provided by the User Request File Unit-8 for billpayer units. A match of the criteria with any one of the A-RECORDS for a unit is sufficient to identify the unit as a billpayer unit.

c. Input

Common blocks - XNONUNT, XRCD

d. Processing. The processing of TSTBIL is described as follows:

● The following local variables are used to test the TAEDPA record:

```
CLVL       = TAEDPA(K)(1:6)
TYPRCD     = TAEDPA(K)(34:34)
BSRC       = TAEDPA(K)(185:193)
BTOE       = TAEDPA(K)(188-193)
BMACOM     = TAEDPA(K)(7:12)
CMPMAC     = TAEDPA(K)(10:12)
BALO       = TAEDPA(K)(194:194)
BBR        = TAEDPA(K)(166:167)
BVAR       = TAEDPA(K)(65:69),
```

where K=1, AREC, and AREC is the counter for the number of A-RECORDS in the unit.

● Each record in the TAEDPA array is compared with the user criteria stored in arrays at the time Unit-8 was read in. CLVL, BSRC, BTOE are compared to BLPID(I).

● If any one of the three is a match, further compares are made. CMPMAC is tested for a match with RMACOM(I) BALO is tested for a match with RALO(I) BBR is tested for a match with RBR(I) BDAMPL must be between RDAMPL(I) and RRND(I)

● If a match is found, BPU is set to communicate the position in the user-criteria arrays, where the match occurred, and MATBIL is set to 1.

● If no match occurs, MATBIL=0.

e. Output

f. Interfaces

Called by: PIKNON

Calls to: None

g. Arguments: None

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

2.4.32 Program Description

    a. Identification

        Tape Processor - TSTNON

    b. Functions. This subroutine tests the first A-RECORD of the unit against the array of prototype UICs created when the User Request File for nonprogramed units was read in. Any match of the TAEDP UIC is sufficient to select the unit as nonprogramed.

    c. Input

        Common blocks - XNONUNT, XRCD

    d. Processing. The processing of TSTNON is described as follows:

- The UIC is in positions 1-6 of TAEDPA(1) and the PROTO UIC is in the array RID

  - If a match occurs, the switch TSTNON is set to 1, NPU is set to the position where the match was found, and positions 124-144 of TAEDPA(1) are stored in RCLAIM(NPU)

  - If no match occurs, TSTNON=0

    e. Output - none

    f. Interfaces

        Called by: PIKNON

        Calls to: None

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.33 <u>Program Description</u>

    a. Identification

        Tape Processor - WRBCD

    b. Functions. This subroutine writes the B-, C-, and D-RECORDS associated with a selected nonprogramed unit to a scratch file for use in subsequent processing.

    c. Input

        Common blocks - XNONUNT, XRCD

    d. Processing. The processing of WRBCD is described as follows:

        ● Blank selected fields in record
        ● Write record to Unit-13

    e. Output

        Record to Unit-13

    f. Interfaces

        Called by: PIKNON

        Calls to: None

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.34 Program Description

    a. Identification

        Tape Processor - WRBLP

    b. Functions. This subroutine writes B-RECORDS, C-RECORDS, and
        D-RECORDS of a selected billpayer unit to Unit-14, disk file
        interface.

    c. Input

        Common blocks - XNONUNT, XRCD

    d. Processing. The processing of WRBLP is described as follows:

        TYPRCD=RECORD(34:34)
        A check of record type is made. B-RECORDS, C-RECORDS, and
        D-RECORDS of a unit selected as a billpayer are output to Unit-14.

    e. Output

    f. Interfaces

        Called by: PIKNON

        Calls to: None

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary.

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2.4.35 Program Description

   a. Identification

       Tape Processor - WRBLPA

   b. Functions. This subroutine outputs the A-RECORDS collected in the
       TAEDPA array to Unit-14 and to Unit-18.

   c. Input

       Common blocks - XNONUNT, XRCD

   d. Processing. The processing of WRBLPA is described as follows:

       Call DSYNP2('NEXT') to write the first A-RECORD to display.
       Output all the A-RECORDS to Unit-14, the disk file interface.
       AREC is the counter for the number of records in the array.

   e. Output. Unit-14.

   f. Interfaces

       Called by: PIKNON

       Calls to: DSYNP2

   g. Arguments: None

   h. Tables and Items. Please refer to Table 2-2 for the Data
       Dictionary.

2.4.36 Program Description

    a. Identification

        Tape Processor - WRCCT (IFILE)

    b. Functions. This subroutine writes a T-RECORD to the CTU Unit
        File. The T-RECORD contains all of the equipment change amounts
        for CTU records.

    c. Input

        Common block XRCD

    d. Processing. WRCCT initially puts header information on the
        T-RECORD, including a "T" in position 34. The record of 239
        characters is then written to the CTU Unit File.

    e. Output. Writes a 239-character T-RECORD to file 12.

    f. Interfaces

        Called by: CHKEQP (12)

        Calls to: None

    g. Arguments

        IFILE - The unit number of the output file. Always a value of 12
              for the CTU Unit File.

    h. Tables and Items. Please refer to Table 2-2 for the Data
        Dictionary.

2.4.37 Program Description

a. Identification

    Tape Processor - WRHDG (DSYNR)

b. Functions. This subroutine prints the column headings for each of
    the six reports generated by the Tape Processor.

c. Input

    Common block XINPUT

d. Processing. WRHDG prints the column headings for each Tape
    Processor report. Reports 1-5 are written to Unit-6, and Report
    #6 is written to Unit-16. Both units are print files.

    See the program listings for actual format statements. See
    Figures 2-6 through 2-11 for sample reports.

e. Output. The printing of the column headings for all six reports
    is controlled through this subroutine.

f. Interfaces

    Called by: WRTTL

    Calls to: None

g. Arguments

    DSYNR - The report number (value of 1-6)

h. Tables and Items. Please refer to Table 2-2 for the Data
    Dictionary.

2.4.38 Program Description

a. Identification

Tape Processor - WRNMSG (INDX)

b. Functions. This subroutine will print a warning message for each of the following four conditions:

● Number 1 - CTU changes already in TAEDP.
● Number 2 - Character change quantity from CTU not translatable.
● Number 3 - SRC storage exceeded.
● Number 4 - LIN storage exceeded.

c. Input

Common blocks XCONTRL, XSRCTMP

d. Processing. The following messages are possible:

● "WARNING 1 - CTU CHANGES FOR SRC = xxxxxxxxx, LIN = xxxxxx ALREADY EXISTS"
This message is no longer utilized.
● "WARNING 2 - EQP CHG QTY FOR SRC = xxxxxxxxx, LIN = xxxxxx NOT TRANSLATABLE"
This message is generated if the rightmost character of the CTU change amount cannot be translated from character into integer format.
● "WARNING 3 - SRC STORAGE EXCEEDED AT SRC = xxxxxxxxx"
This message is generated if the number of SRCs read from the CTU exceeds 1,000.
● "WARNING 4 - LIN STORAGE EXCEEDED AT SRC = xxxxxxxxx, LIN = xxxxxx"
This message is generated if more than 30 equipment changes are read for one SRC.

e. Output. The warning messages will be written to the printer.

f. Interfaces

Called by: CTULST (3)(4)
            XLATE (2)

Calls to: None

g. Arguments

INDX - The warning message number (value of 1-4)

h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.39 Program Description

a. Identification

Tape Processor - WRNONA

b. Functions. This subroutine performs the following functions
subsequent to the match of UIC input in the User Request File with
a UIC on a TAEDPA record. It compares the E-DATE with the fiscal
year of the TAEDP record. It generates or deletes A-RECORDS on
the basis of the relationship. It blanks/zeros MACOM, DAMPL,
BRANCH, and SRC and adds a new field in position 174 of the TAEDP
record. It outputs the A-RECORD array to Unit-13.

c. Input

Common blocks - XNONUNT, XRCD

d. Processing. The processing of WRNONA is described as follows:

Call DSYNP1 to write the first A-RECORD to Unit-17
If RDATE(NPU) is less than the TAEDPA(1) FY, generate A-RECORDS
from RDATE(NPU) to TAEDPA(1) FY
If RDATE(NPU) is greater than TAEDPA(1) FY, delete A-RECORDS prior
to TAEDPA(1) FY
If RDATE(NPU) equals the TAEDPA(1) FY, leave the array as is
Overlay MACOM, DAMPL, UNIT, BRANCH, SRC, and put 'Z' in a new
field
Write the A-RECORDS to Unit-13

e. Output

Unit-13, scratch file to store the records for one unit
Unit-17, alternate print file for nonprogramed unit display

f. Interfaces

Called by: PIKNON

Calls to: None

g. Arguments: None

h. Tables and Items. Please refer to Table 2-2 for the Data
Dictionary.

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2.4.40 Program Description

    a. Identification

        Tape Processor - WRRCD (IFILE, *)

    b. Functions. This subroutine writes a selected TAEDP record to the output file selected by the passed parameter. The record will be written either to the CTU Unit File, file 12, or the Activated Unit File, file 11.

    c. Input. None.

    d. Processing. WRRCD simply writes a 239-character TAEDP record to file 11 or new activations and writes to file 12 for units affected by CTU changes.

    e. Output

        Records are written to output files 11, Activated Unit File and file 12, CTU Unit Files. These files are the sole input files to the File Processor.

    f. Interfaces

        Called by: ANYSRC (12,*)
                   CHKEQP (12,*)
                   PIKNEW (11,*)

        Calls to: None

    g. Arguments

        • IFILE - Value of 11 or 12 representing the unit number of the output file
        • A numbered return in the calling routine, represented by an asterisk.

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.41 <u>Program Description</u>

    a. Identification

       Tape Processor - WRTTL (DSYNR, NPAGE)

    b. Functions. This subroutine prints the page header for each of the six reports generated by the Tape Processor.

    c. Input

       Common block XINPUT

    d. Processing. WRTTL prints the page headings for each Tape Processor report. Reports 1-5 are written to Unit-6 and Report #6 is written to Unit-16. The subroutine WRHDG is called to print the column heading after the page heading has been printed. The system function ADATE is used to return the current date and time.

    e. Output

       The printing of report headings for all six reports is performed by this subroutine.

    f. Interfaces

       Called by: DSYCTL

       Calls to: WRHDG (report number)

    g. Arguments

       ● DSYNR - The report number (value of 1-6)
       ● NPAGE - The page number.

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

2.4.42 Program Description

    a. Identification

        Tape Processor - WSRCD

    b. Functions. This subroutine rewinds the scratch file, Unit-13, to which records for one unit selected as nonprogramed, have been written. It proliferates the nonunit records according to user request. It overlays all unit records with the new identification in positions 1-6. It outputs all the records for as many units as have been requested to Unit-14 for further processing. It outputs the first A-RECORD of each newly generated unit to Unit-17, the alternate print file, for display.

    c. Input

        Common blocks - XNONUNT, XRCD

    d. Processing. The processing of WSRCD is described as follows: the new identification for the unit is composed of four alpha characters in the array RCODE(2,99), created when the User Request File for Nonunits was read in. A second array, IQY(99), specifies the number of new units requested. Two integer digits are right-justified in positions 5-6 of the new identification. They are in sequence from 01 to the quantity specified. The variable, NPU, received its value in TSTNON when the match was made and is the subscript for user-request arrays. Note that the pointer is repositioned to the beginning of the file prior to each overlay of new identification and subsequent unit output.

    e. Output: None

    f. Interfaces

        Called by: PIKNON

        Calls to: DSYNP1

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-2 for the Data Dictionary.

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2.4.43 <u>Program Description</u>

   a. Identification

      Tape Processor - XLATE (CHGNRS, CHGLTR, ICHG, *)

   b. Functions. This subroutine translates the least significant digit
      of the CTU equipment change quantity from character format to
      integer format and computes the overall change value, including
      the sign.

   c. Input

      Common block XSRCCNT

   d. Processing. The processing of XLATE is described as follows:

      The change amount (CHGNRS) and change letter (CHGLTR) are passed
      to this subroutine. The change letter is converted as follows:

      ● A value of 0 through 9 remains as shown.
      ● A value of J through R is converted to 10 through 19,
        respectively.

      The change letter value, once converted, is added to the change
      amount and returned to the calling subroutine in the parameter
      ICHG.

   e. Output. None.

   f. Interfaces

      Called by: CHGLST

      Calls to: None

   g. Arguments

      ● CHGNRS - The change amount to be translated.
      ● CHTLTR - The last significant digit before translation.
      ● ICHG - The last significant digit after translation.
      ● A numbered return in the calling routine, represented by an
        asterisk.

   h. Tables and Items. Please refer to Table 2-2 for the Data
      Dictionary.

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2.5 <u>Program Description - File Processor</u>. Subsection 2.5 will contain a description of the main program for the File Processor and the 27 associated subroutines. A complete listing of the programs to be discussed in subsection 2.5 is contained below.

Paragraph number	Program name
2.5.1	MAIN
2.5.2	ACCUM
2.5.3	CNTLVL
2.5.4	CNTRCD
2.5.5	DECOD
2.5.6	DSYCTL
2.5.7	DSYSM1
2.5.8	DSYSM2
2.5.9	LOADA
2.5.10	LOADB
2.5.11	LOADBØ
2.5.12	LOADC
2.5.13	LOADD
2.5.14	LOADNA
2.5.15	LOADT
2.5.16	MERGE
2.5.17	PAGADV
2.5.18	RDCNTS
2.5.19	RDRCD
2.5.20	SRTMRG
2.5.21	TSTCON
2.5.22	TSTUNT
2.5.23	WRCLS
2.5.24	WRCNTS
2.5.25	WRHDG
2.5.26	WRRCD
2.5.27	WRSKP
2.5.28	WRTTL
2.5.29	XLATE

A set of figures and tables is provided to assist the reader in understanding the internal logic of the model. The exhibits begin with a flow diagram of the File Processor to provide a general understanding of the system. Other figures which follow are meant to provide a more detailed picture of the logic of the individual data elements and routines. A description of the purpose of each figure is presented below in the same sequence as the figures and tables appear in this subsection.

a. <u>File Processor Flow Diagram</u>. It is recommended that the flow diagram (Figure 2-12) be used as the starting point for the first time reader in understanding the logic of this processor. An attempt has been made to highlight the major functions performed and explain them in such a manner that a reader totally unfamiliar with the system could understand. The subsections 2.1, System Description, and 2.3, General Description, should be read first to obtain an introduction to the purpose of the File Processor. The flow diagram is annotated with subroutine names wherever possible in order to link the overall logic of the processor with the individual functions of each routine.

b. <u>Common Block Cross-reference (File Processor)</u>. The majority of information is passed between routines via common blocks. Figure 2-13 should assist the reader in understanding which data elements, or blocks of elements, are used in which routines. This should be especially useful when trying to trace an individual element throughout the entire processor, or in cases where a new common block variable is added. If a new variable is added to a common block, this table will show immediately which routines will have access to the new variable.

c. <u>Common Block Dictionary (File Processor)</u>. The Common Block Dictionary identifies the individual arrays or variables defined within each common block. Table 2-3 will serve as a useful tool in tracing a specific data element throughout the processor. The Data Dictionary, described on the following page, is also useful in describing the function and usage of each common block element.

d. <u>Program Unit Hierarchy (File Processor)</u>. Figure 2-14 shows the structure of all the routines within the File Processor. The processor is comprised of one main program and a series of subroutines, all of which are controlled, directly or indirectly, by the main program. This chart shows how the processor flows from the main program through each of the subroutines. Figure 2-14, along with Figure 2-15, allows the reader to see which routines are called by other routines, rather than by the main program.

e. <u>Subroutine Cross-reference (File Processor)</u>. The subroutine cross-reference (Figure 2-15) provides an explanation of which routines control the processing of other routines. On the vertical axis (side of the page), the calling (controlling) routines are shown. The routines called are shown on the horizontal axis (top of page). A dot in the appropriate column links the called routine with the controlling routine.

f. <u>Data Dictionary (File Processor)</u>. Table 2-4 provides a description of each variable passed via common block in the File Processor. This listing includes both variables and arrays and describes the size, format, uses, and purposes of each data element. This table should be used as the main reference for information on the purpose, or other characteristics, of a data element.

g. <u>Report Layouts (File Processor)</u>. Figures 2-16 and 2-17 provide a layout of the reports produced by the File Processor. These figures will be referenced within individual program descriptions wherever applicable and provide further information on the format and content of each report.

NOTE: Figures and tables mentioned in this section appear as a group in the following pages. They are then referenced, as needed, in the later program descriptions.

Figure 2-12. File Processor Flow Diagram
(page 1 of 2 pages)
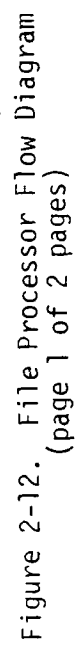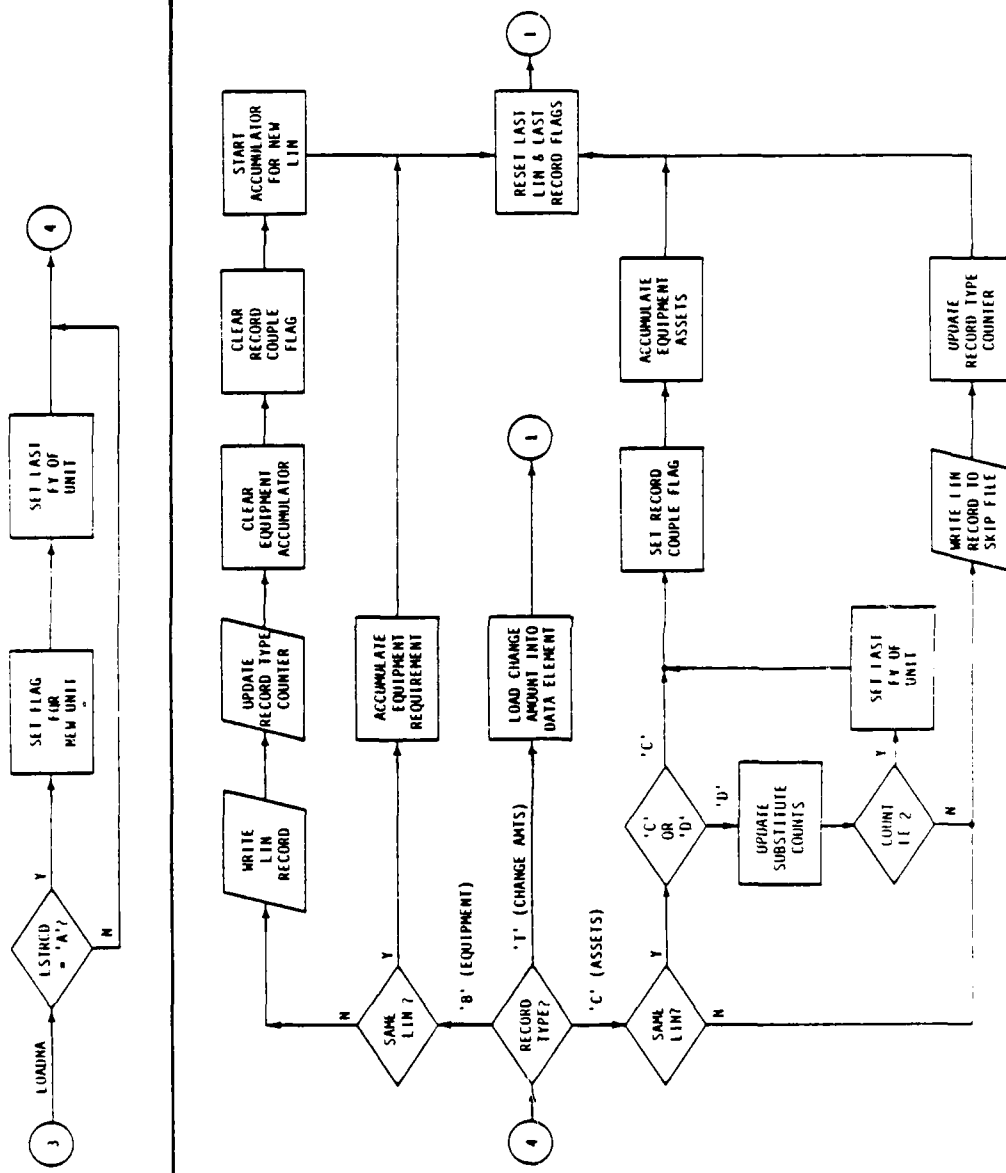
Figure 2-12. File Processor Flow Diagram
(page 2 of 2 pages)

AD-A156 515   EFFECTIVE DATE (E-DATE) MODEL DOCUMENTATION VOLUME 4   2/3
PROGRAM MAINTENANCE MANUAL(U) ARMY CONCEPTS ANALYSIS
AGENCY BETHESDA MD   J J CONNELLY MAY 85
UNCLASSIFIED   CAA-D-85-6-VOL-4   F/G 9/2   NL

III 1.0 | 4.5 | 2.8 | 2.5
         | 5.0 |
III 1.1 | 5.6 | 3.2 | 2.2
         | 6.3 | 3.6
              | 4.0 | 2.0

III 1.1   III 1.8

III 1.25 III 1.4 III 1.6
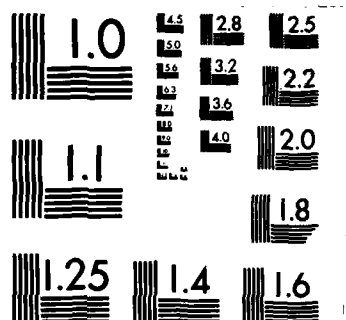
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

ROUTINE	\ COMMON BLOCK	XASTDTA	XCONTRL	XINPUT	XRCD	XRQMDTA	XSUMLVL	XSUMRCD	XUNTDTA	XDSYWTH	XDSYTXT
	ACCUM	■			■						
	CNTLVL		■				■	■	■		
	CNTRCD		■		■		■				
	DECOD	■			■	■		■			
	DSYCTL										
	DSYSM1						■				
	DSYSM2						■	■			
	LOADA		■	■					■		
	LOADB	■	■			■		■			
	LOADBO	■	■					■			
	-LOADC	■	■								
	LOADD	■	■								
	LOADNA		■	■					■		
	LOADT										
	MAIN		■	■							■
	PAGADV										
	RDCNTS							■			
	RDRCD		■		■						
	SRTMRG	■	■	■		■			■		
	TSTSET			■	■						
	TSTUNT		■	■							
	WRCLS		■							■	
	WRCNTS							■			
	WRHDG		■	■							■
	WRRCD	■	■	■		■		■	■		
	WRSKP	■	■								
	WRTTL		■							■	
	XLATE	■	■	■		■					

Figure 2-13. Common Block Cross-References (File Processor)

Table 2-3. Common Block Dictionary (File Processor)

Common block	Variables
XASTDTA	UICC, LINC, NSNNM, IPROJ, CPROJ, CUMPRJ
XCONTRL	LTR, TCLVL, SKPVLV, LSTRCD, LSTLIN, IUNT, TYPUNT, ACTYR, IFY, IALL RCDCPL, CURLIN, NEWSET, CMD, CMDSET
XINPUT	EDATE, FRSTFY, DTADTE, NFYSET, RUNCLS, CCTID, DTASET, CMDPIK
XRCD	RECORD
XRMDTA	UICB, LIN, LINNM, ERC, PACR, ACFT, IREQD, CREQD, IAUTH, CAUTH, ERCFY, CUMRQD, CUMATH, ICHG
XSUMLVL	TOEFLD, NONSKP, TOESKP, AUCSKP, TDASKP, POMSKP
XSUMRCD	IA, IBC, IB, IC, TOEUIC, TOEBR, TOENM
XUNTDTA	UIC, UBR, UNAME, NFY, UDAMPL, UMACOM, USRC, IEDATE, ILDATE, UALO, UALOFY, USCRFY, UDAMFY, UMACFY

NOTE: Refer to Table 2-4 for additional information on File Processor variables.

CAA-D-85-6
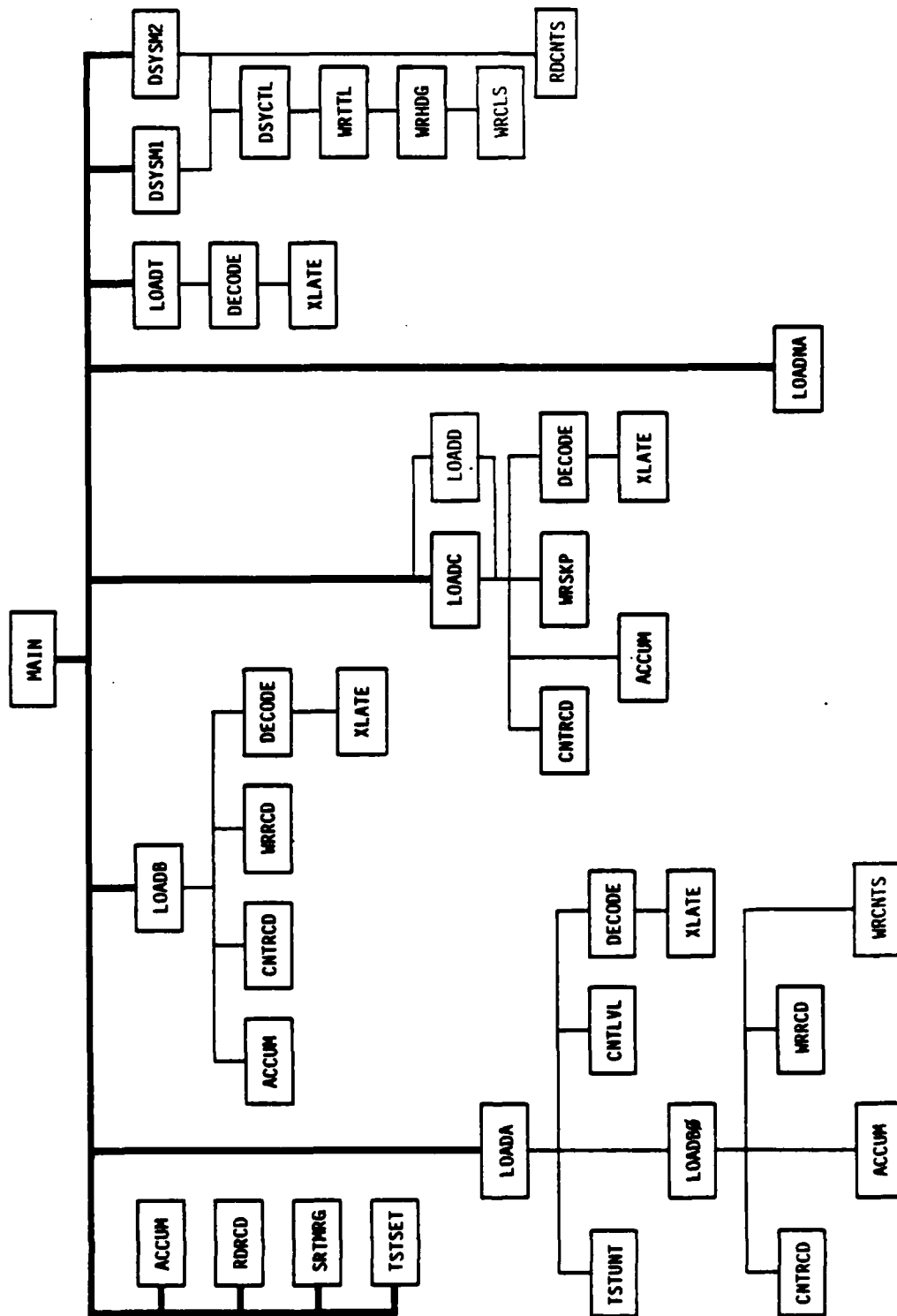
Figure 2-14. Program Unit Hierarchy (File Processor)

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CALLING ROUTINE \ CALLED ROUTINE	ACCUM	CNTLVL	CNTRCD	DECOD	DSYCTL	DSYSM1	DSYSM2	LOADA	LOADB	LOADBO	LOADC	LOADD	LOADNA	LOADT	MAIN	PAGADV	RDCNTS	RDRCD	SRTMRG	TSTSET	TSTUNT	WRCLS	WRCNTS	WRHDG	WRRCD	WRSKP	WRTTL	XLATE
ACCUM																												
CNTLVL																												
CNTRCD																												
DECODE																												■
DSYCTL																											■	
DSYSM1				■																		■						
DSYSM2				■													■					■						
LOADA		■	■	■						■												■						
LOADB	■		■	■																					■			
LOADBO	■		■																					■	■			
LOADC	■		■	■																						■		
LOADD	■			■																								
LOADNA																												
LOADT				■																								
MAIN	■				■	■	■	■	■	■	■	■	■	■		■		■	■	■	■							
PAGADV																												
RDCNTS																												
RDRCD																												
SRTMRG																												
TSTSET																												
TSTUNT																												
WRCLS																												
WRCNTS																												
WRHDG																												
WRRCD																												
WRSKP																												
WRTTL																									■			
XLATE																												

Figure 2-15. Subroutine Cross-References (File Processor)

Table 2-4. Data Dictionary - File Processor
(page 1 of 6 pages)

Name	Subroutine	Size	Fmt	Description
ACFT	DECOD(I)* WRRCD(P)	N/A	I1	Indicates whether an item is aircraft
ACTYR	RDRCD(I)* TSTUNT(P)	N/A	I2	The unit's FY from the A-RECORD
AUGSKP	CNTLFL(P)* DSYSM1(P,O)	N/A	I4	Count of augmented units skipped
CAUTH	DECOD(I)(P)*	7	A1	Last character of authorized quantity for each fiscal year
CCTID	MAIN(I)* WRHDG(O)	N/A	A6	The CTU identifier to be displayed
CMD	RDRCD(I)* TSTUNT(P)	N/A	A3	The MACOM of the unit
CMDPIK	MAIN(I)* TSTUNT(P) WRHDG(O)	13	A3	The "yes" or "no" parameters used to select units for each of 13 MACOMs
CMDSET	TSTUNT(P)* WRHDG(O)	13	A3	The 13 MACOM abbreviations, in processing order
CPROJ	DECOD(I)*	7	A1	Last character of projected quantity for each fiscal year
CREQD	DECOD(I)*	7	A1	Last character of required quantity for each fiscal year
CTLLVL	LOADA(P) MAIN(P) RDRCD(I)*	N/A	A6	The unit ID from the TAEDP
CUMATH	ACCUM(P)* STRMRG(I,O) WRRCD(O)	7	I	Accumulated amount of authorized equipment for a LIN
CUMPRJ	ACCUM(P) SRTMRG(I,O)* WRRCD(O)	7	I	Accumulated amount of projected equipment for a LIN

Table 2-4. Data Dictionary - File Processor
(page 2 of 6 pages)

Name	Subroutine	Size	Fmt	Description
CUMRQD	ACCUM(P) SRTMRG(I,O) WRRCD(O)	7	I	Accumulated amount of required equipment for a LIN
CURLIN	LOADB(P) RDRCD(P)*	N/A	A6	The current LIN identifier
DTADTE	MAIN(I)* WRTTL(O)	N/A	A8	TAEDP run date (MM/DD/YY)
DTASET	MAIN(I)* TSTSET(P) TSTUNT(P) WRHDG(P) WRTTL(P)	N/A	A6	The file to be processed; either "CTUUNT" or "NEWUNT"
EDATE	MAIN(I)* TSTUNT(P) WRHDG(O)	N/A	I2	Unit activation year of interest
ERC	CNTRCD(P) DECOD(I,P)*	N/A	A1	Item equipment readiness code
ERCFY	ACCUM(P) DECOD(P)* SRTMRG(I,O) WRRCD(O)	7	A1	The ERC of a LIN for each FY
FRSTFY	LOADA(P) MAIN(I,P)*	N/A	I2	First year of planning period
IA	CNTRCD(P)* DSYSM2(O)	400	I	Total number of A-RECORDS for each unit (max 400)
IALL	CNTLVL(P)* XLATE(O)	N/A	I4	Count of all units processed
IAUTH	ACCUM(P) DECOD(I)*	7	I	Item authorized quantity for each fiscal year
IB	CNTRCD(P)* DSYSM2(P,O)	(400x3)	I	Total number of B-RECORDS for each unit (max 400), by ERC level (A, B, or C)

Table 2-4. Data Dictionary - File Processor
(page 3 of 6 pages)

Name	Subroutine	Size	Fmt	Description
IBC	CNTRCD(P)* DSYSM2(P,0)	(400x3)	I	Total number of B-RECORD, C-RECORD pairs for each unit (max 400), by ERC level (A, B, C)
IC	CNTRCD(P)* DSYSM2(0)	400	I	Total number of C-RECORDS for each unit (max 400)
ICHG	ACCUM(P) DECOD(I)* SRTMRG(I,0) WRRCD(0)	7	I	Item change amount for each fiscal year
IEDATE	LOADA(P)* WRRCD(P)	N/A	I2	Index value of initial fiscal year of unit
IFY	LOADA(P)* LOADNA(P)	N/A	I2	Fiscal year index (1-7)
ILDATE	LOADA(P)* LOADNA(P) WRRCD(P)	N/A	I2	Unit termination date as assigned. Index value of final fiscal year of unit
IPROJ	ACCUM(P) DECOD(I) WRSKP(0)	7	I	Item projected on-hand quantity for each fiscal year
IREQD	ACCUM(P) DECOD(I,P)*	7	I	Item required quantity for each fiscal year
IUNT	CNTLVL(P) CNTRCD(P) LOADA(P)* SRTMRG(I,0) WRRCD(0)	N/A	I4	Count of TOE units processed
LIN	DECOD(I)* LOADB(P) SRTMRG(I,0) WRRCD(0) XLATE(0)	N/A	A6	Item identification code

Table 2-4.   Data Dictionary - File Processor
(page 4 of 6 pages)

Name	Subroutine	Size	Fmt	Description
LINC	DECOD(I)* LOADC(P) WRSKP(O) XLATE(O)	N/A	A6	C-RECORD item identifier
LINNM	DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	A22	Item name on B-RECORD
LSTLIN	LOADB(P)* LOADC(P)* MAIN(P)	N/A	A6	Item code on previous record
LSTRCD	LOADA(P)* LOADB(P) LOADC(P) LOADNA(P) MAIN(P)	N/A	A1	The record type of previous record
LTR	MAIN(P) RDRCD(I)*	N/A	A1	Record letter of current record
NEWSET	LOADB(P)* LOADNA(P)* MAIN(P)	N/A	A1	Flag to indicate first B-RECORD of a unit
NFY	DECOD(I)* LOADA(P) LOADNA(P)	N/A	I2	Fiscal year on current A-RECORD
NFYSET	LOADA(P) LOADNA(P) MAIN(P)* SRTMRG(I,O) WRRCD(O)	7	I	The 7 fiscal years of the planning period, expressed as the last two digits of the year
NONSKP	CNTLVL(P)* DSYSM1(P,O)	N/A	I4	Count of non-items skipped
NSNNM	DECOD(I)* WRSKP(O)	N/A	A22	C-RECORD item name
PACR	DECOD(I)* WRRCD(P)	7	I	The pacing indicator for each fiscal year, added to the B-RECORD by LEA

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Table 2-4. Data Dictionary - File Processor
(page 5 of 6 pages)

Name	Subroutine	Size	Fmt	Description
POMSKP	CNTLVL(P)* DSYSM1(P,0)	N/A	I4	Count of POMCUS units skipped
RCDCPL	LOADB(P) LOADBO(P) LOADC(P) MAIN(P)	N/A	I1	Flag for B-RECORD, C-RECORD pairings (0-not paired, 1-paired)
RECORD	DECOD(I) RDRCD(I)* TSTSET(P)	N/A	A239	TAEDP record from Tape Processor
RUNCLS	MAIN(I)* WRTTL(0)	N/A	I12	Run classification (spelled out)
SKPLVL	LOADA(P)* MAIN(P)	N/A	A6	ID of unit to be skipped
TDASKP	CNTLVL(P)* DSYSM1(P,0)	N/A	I4	Count of TDA units skipped
TOEBR	CNTLVL(P)* DSYSM2(0)	400	A2	Unit branch of filed unit (max 400)
TOEFLD	CNTLVL(P)* DSYSM1(P,0) DSYSM2(P)	N/A	I4	Count of TOE units output
TOENM	CNTLVL(P)* DSYSM2(0)	400	A21	Unit name of filed unit (max 400)
TOESKP	CNTLVL(P)* DSYSM1(P,0)	N/A	I4	Count of TOE units skipped
TOEUIC	CNTLVL(P)* DSYSM2(0)	400	A6	Unit ID of filed unit (max 400)
TYPUNT	LOADA(P) RDRCD(I)*	N/A	I1	A-RECORD unit type
UALO	DECOD(I)* SRTMRG(I,0) WRRCD(0)	N/A	I1	Unit authorized level of organization

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Table 2-4. Data Dictionary - File Processor
(page 6 of 6 pages)

Name	Subroutine	Size	Fmt	Description
UBR	CNTLVL(P) DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	A2	Unit branch
UDAMPL	DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	I5	Unit DAMPL (priority)
UIC	CNTLVL(P) DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	A6	Unit ID code (A-RECORD)
UICB	DECOD(I)& XLATE(O)	N/A	A6	Unit ID code (B-RECORD)
UICC	DECOD(I) WRSKP(O) XLATE(O)	N/A	A6	Unit ID code (C-RECORD)
UMACOM	DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	I2	Unit command
UNAME	CNTLVL(P) DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	A2	Unit name
USRC	DECOD(I)* SRTMRG(I,O) WRRCD(O)	N/A	A9	Unit SRC

NOTES:
   The letter (P, I, O) next to the subroutine name denotes the usage of the
table as follows: (P) - processing, (I) - input, (O) - output.
   An asterisk (*) occurring to the right of the routine name indicates that
the table is originated by that routine.
   The letter (A, I) in the format column of the table denotes the array
characteristics as follows: (A) - alphanumeric, (I) - integer.

```
EDATE MODEL                    FILE PROCESSOR          PAGE 1
DISPLAY FP / 1/                                        DATA DATE:  TESTDATA
                               UNIT SUMMARY            REPT DATE:  10/14/83


                 *****    UNCLASSIFIED    *****


                 UNITS ACTIVATED IN FY 83

TOTAL          TOTAL      TOTAL      TOTAL      TOTAL      TOTAL      TOTAL
UNITS          TOE        NON        TOE        AUG  TOE   TDA        POM

READ           FILED      SKIPPED    SKIPPED    SKIPPED    SKIPPED    SKIPPED


95             50         0          45         0          0          0


                 *****    UNCLASSIFIED    *****
```

Figure 2-16.   Report #1, File Processor Unit Summary

EDATE MODEL
DISPLAY FP / 2/

FILE PROCESSOR
TAEDP RECORD SUMMARY

DATA DATE: TESTDATA
REPT DATE: 10/14/83

***** UNCLASSIFIED *****

UNITS ACTIVATED IN FY 83

NUMBER OF RECORD ACCUMULATIONS PROCESSED

NR	UNIT ID	UNIT BR	UNIT NAME	UNIT DESC RCDS (A) FILED	ERC=A			ERC=B			
					RQMTS+ ASSETS RCDS (B+C) FILED	RQMTS ONLY RCDS (B) FILED	PERCENT RQMTS+ ASSETS	RQMTS+ ASSETS RCDS (B+C) FILED	RQMTS ONLY RCDS (B) FILED	PERCENT RQMTS+ ASSETS	ASSETS ONLY RCDS (C) SKIPPED
1	UNT050	AG	CO ADMINISTRATIVE	7	16	1	94.1	23	1	95.8	2
2	UNT052	IN	BN AIRBORNE	7	68	10	97.2	37	1	97.4	6
3	UNT054	IN	BN AIRBORNE	7	68	10	87.2	37	0	97.4	6
4	UNT056	AA	HHC DIV AIR ASSAULT	7	27	1	96.4	32	0	100.0	4
5	UNT058	FA	HHB DIV ARTY	7	65	3	95.6	39	6	86.7	18
6	UNT060	EN	BN AIR ASSAULT	7	51	6	89.5	53	2	96.4	17
7	UNT062	SC	BN AIR ASSAULT	7	71	8	89.9	72	7	91.1	22
8	UNT064	AR	HHC DIV	7	53	2	96.4	40	5	88.9	10
9	UNT066	CS	HHC SUPPORT COMMAND	7	10	1	90.9	78	6	92.9	5
10	UNT070	FA	BN 155 SP	7	60	28	68.2	69	16	81.2	7
11	UNT072	CS	BN MAINTENANCE	7	217	22	90.8	62	12	83.8	47
12	UNT074	AR	SQ CAV/HVY DIV (-)	7	96	12	88.9	90	9	90.9	21
13	UNT076	FA	HHB DIV ARTY	7	71	12	85.5	40	8	83.3	16
14	UNT078	IN	BN MECH	7	81	14	85.3	38	5	88.4	23
15	UNT080	AR	BN TANK	7	87	10	89.7	57	4	93.4	4
16	UNT082	SC	BN	7	75	8	90.4	76	19	80.0	18
17	UNT084	AR	HHC BDE	7	65	6	91.5	41	2	95.3	8
18	UNT086	AR	SQ CAVALRY	7	102	15	87.2	124	9	93.2	11
19	UNT088	AR	BN TANK	7	95	9	91.3	55	6	90.2	9
20	UNT090	MD	BN	7	57	2	96.6	48	6	88.9	0
21	UNT092	AR	BN (CBT) SO AD	7	215	15	93.5	103	12	89.6	14
22	UNT094	AR	BN TANK	7	100	7	93.5	57	4	93.4	17
23	UNT096	FA	BN 8IN SP	7	115	12	90.6	69	7	90.8	12
24	UNT098	IN	BN MECH	7	102	14	87.9	38	4	90.5	11
25	UNT100	AR	BN TANK	7	67	16	80.7	58	6	90.6	14

***** UNCLASSIFIED *****

Figure 2-17. Report #2, File Processor TAEDP Record Summary

2.5.1 Program Description

    a. Identification

        File Processor - MAIN

    b. Functions. This program controls the processing of the File
        Processor. The functions performed include reading the Run
        Control Parameters input by the user, reading the files produced
        by the Tape Processor, processing the records, and writing them to
        seven fiscal year files. At the end of the process, the files are
        sorted and concatenated to a single file.

    c. Input. This program requires the following files as inputs:

- Run Control Parameter Files; Unit-2.
  - Nonchanged Units Run (MTOE*RTGCTL01).
  - Changed Units (MTOE*RTGCTL02).
- Activated Unit File (MTOE*TP3NEW4∅); Unit-7.
- CTU Unit File (MTOE*TP3CHG∅∅); Unit-7.
- Common blocks XCONTRL, XINPUT.

Note: More detailed information on these files is contained in
Section 3, subparagraph 3.3, Data Base.

    d. Processing. The processing of MAIN is described as follows:

- Converted Unit File (MTOE*TP3CON40), Unit-7
- Non-programed Unit File (MTOE*TP3NON40); Unit-7
- Special Unit File (MTOE*TP3SPC40); Unit-7
- Begin File Processor.
- Read user-input Run Control Parameters (Unit-2) for dataset
  selection, first fiscal year, data creation date, and run
  classification.
- If data file is not "CHSUNT" selected, read the next record
  from Unit-2 for the EDATE;
  Else, if "CHGUNT" data file is selected, read the "YES" or "NO"
  values for each of the 13 MACOMs (major Army commands);
  Else, abort processing due to invalid parameter.
- Dynamically assign data set of interest to Unit-7.
- Complete set of fiscal years for run.
- Clear requirements and asset accumulators to zero.
- Read the TAEDP record from the selected file.
- If first read, check positions 13 or 14 to verify file.
- If record not a TOE unit (type = 1), skip record.
- If record type (position 34) = "A" then call LOADA, else call
  LOADNA. If LOADA is called, no further processing will take
  place for this record. All of the commands found below up
  until the report summaries are only applicable for non-"A"
  records.

- If record type = "B" call LOADB.
- If record type = "C" call LOADC.
- If record type = "D" call LOADD.
- If record type = "T" call LOADT.
- Call LOADBØ to complete processing of a "B" record for the last record on the file.
- Call STRMRG to sort seven fiscal year files into one output file.
- Call DSYSM1 and DSYSM2 to produce summary report.

e. Output. The following outputs are produced by the File Processor:

- Report #1, File Processor Unit Summary; refer to Figure 2-16 for sample.
- Report #2, File Processor TAEDP Record Summary; refer to Figure 2-17 for sample.
- Selected Units File (MTOE*FP3PIK20)
- Skipped Items File (MTOE*FP3SKP20)

f. Interfaces

Called by: None

Calls to: ACCUM (Ø)
DSYSM1
DSYSM2
LOADA (*)
LOADB (*)
LOADC (*)
LOADD (*)
LOADNA (*)
LOADT (*)
MERGE
PAGADV
RDRCD (*)
SRTMRG
TSTSET

g. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.2 <u>Program Description</u>

    a.   Identification

        File Processor - ACCUM (INDX)

    b.   Functions. This subroutine accumulates the requirements data from the B-RECORDS and the assets data from the C-RECORDS into tables for each LIN by fiscal year.

    c.   Input

        Common blocks XASTDTA, XRQMDTA

    d.   Processing. The processing of ACCUM is described as follows:

       ● If INDX = 0, then clear out all tables to zero.
       ● If INDX = 1, then return.
       ● If INDX = 2, then accumulate requirements data:
          ● Accumulate the quantity of equipment required for all 7 years into CUMRQD(I).
          ● Accumulate the quantity of equipment authorized for all 7 years into CUMATH(I).
       ● If INDX = 3, then accumulate all asset data (IPROJ) from the C-RECORD, for all 7 years, into the CUMPRJ table.

    e.   Output. None.

    f.   Interfaces

        Called by: LOADB
                     LOADBØ
                     LOADC
                     MAIN

        Calls to: None

    g.   Arguments

        INDX - A designation of the record type, assists in tracking record placement within a unit.

    h.   Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.3 Program Description

a. Identification

   File Processor - CNTLVL (ITYPE)

b. Functions. This subroutine counts the number of TOE units, augmented TOE units, and TDA units read from the Tape Processor file. An argument is passed to this subroutine for the unit type. The function of this subroutine is similar to the subroutine of the same name in the Tape Processor.

c. Input

   Common blocks XCONTRL, XSUMLVL, XSUMRCD, XUNTDTA

d. Processing. The processing of CNTLVL is described as follows:

   - If unit type = 0, add 1 to nonunits skipped.
   - If unit type = 1, add 1 to TOE units skipped.
   - If unit type = 2, add 1 to augmented units skipped.
   - If unit type = 3, add 1 to TDA units skipped.
   - If unit type = 4, add 1 to POMCUS units skipped.
   - If unit type = 5:
     - Add 1 to TOE units filed.
     - Store unit ID in TOEUIC table.
     - Store BR unit identifier in TOEBR table.
     - Store unit name in TOENM table.

   All of the above three tables are indexed by the subscript IUNT set in the LOADA routine.

e. Output. None.

f. Interfaces

   Called by: LOADA (TYPUNT)(5)(1)

   Calls to: None

g. Arguments

   ITYPE - The unit type of the Tape Processor TAEDP record.

h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.4 Program Description

a. Identification

   File Processor - CNTRCD (ITYPE)

b. Functions. This subroutine counts the number of "A", "B", and "B with C" records filed as well as the number of "C" records skipped for each TOE unit processed.

c. Input

   Common blocks XCONTRL, XRQMDTA, XSUMRCD

d. Processing. The processing of CNTRCD is described as follows:

   ● If ITYPE = 0, add 1 to A-RECORDS filed.
   ● If ITYPE = 1, add 1 to B and C combinations filed.
   ● If ITYPE = 2, add 1 to B-RECORDS filed.
   ● If ITYPE = 3, add 1 to C-RECORDS skipped.
   ● If ITYPE = 4, add 1 to C-RECORDS skipped.
     (All of the above tables are subscripted by ERC within unit index.)

e. Output. None.

f. Interfaces

   Called by: LOADA (1)
                LOADB (2)(3)
                LOADBØ(2)(3)
                LOADC (4)

   Calls to: None

g. Arguments

   ITYPE - The unit type of the Tape Processor TAEDP record.

h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.5 <u>Program Description</u>

   a. Identification

      File Processor - DECOD (ITYPE)

   b. Functions. This subroutine utilizes the FORTRAN command DECODE to move certain positions of either the A, B, C, or T-RECORD into common block variables or tables.

   c. Input

      Common blocks XASTDTA, XRCD, XRQMDTA, XUNTDTA

   d. Processing. The processing of DECODE is described as follows:

- If ITYPE = 1, extract the following fields from the A-RECORD:
  - UIC (Unit ID): positions 1-6.
  - UMACOM (major command): positions 7-12.
  - NFY (fiscal year): positions 46-47.
  - UDAMPL (priority): positions 65-69.
  - UNAME (unit name): positions 124-144.
  - UBR (branch number): positions 166-167.
  - USRC (standard requirements code): positions 185-193.
  - UALO (authorized level of organization): position 194.

Return.

- If ITYPE = 2, extract the following fields from the B-RECORD:
  - UICB (unit ID): positions 1-6.
  - LIN (equipment ID): positions 13-18.
  - ERC (equipment readiness code): position 21.
  - PACR (pacing identifiers): positions 22-28.
  - ACFT (aircraft identification): position 29.
  - LINNM (equipment name): positions 36-57.

Note: Following four fields occur seven times in same sequence, column positions of first occurrence are given.

- IREQD (quantity of LIN required): positions 63-65.
- CREQD (last position of IREQD): position 66.
- IAUTH (quantity of LIN authorized): positions 70-72.
- CAUTH (last position of IAUTH): position 73.

      7 times in same sequence

Return.

Note: XLATE is called to convert IREQD and IAUTH. If amount required for each year is greater than zero, the ERC is preserved in a table indexed by year.

- If ITYPE = 3, extract the following C-RECORD fields:
  - UICC (unit ID): positions 1-6.
  - LINC (equipment ID): positions 13-18.
  - NSNNM (equipment name): positions 36-57.
  - IPROJ (amount projected): positions 121-123 } (occurs
  - CPROJ (last position of IPROJ): position 124 } 7 times)

Return

- If ITYPE = 4, extract the seven CTU change amounts from the T-RECORD. Return.

e. Output. None.

f. Interfaces

Called by: LOADA (1)
              LOADB (2)
              LOADC (3)
              LOADT (4)

g. Arguments

ITYPE - The unit type of the Tape Processor TAEDP record.

h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.6 <u>Program Description</u>

    a. Identification

        File Processor - DSYCTL (DSYNR)

    b. Functions. This subroutine controls the formatting of the detail
        lines in the two reports generated by the File Processor. The
        lines are grouped into blocks, and the number of lines per block
        and the number of blocks per page are established separately for
        each report.

    c. Input. None.

    d. Processing. The processing of DSYCTL is described as follows:

        ● If the report number has changed since the previous call, print
          the headers for the first page of the report. Return.
        ● Group the lines into blocks and skip a line between each block.
        ● Group the blocks on the page and write a new page when the
          maximum number of blocks has been written.
        ● Return.

    e. Output

        Calls WRTTL to print the report headers.

    f. Interfaces

        Called by: DSYSM1 (1)
                 DSYSM2 (2)

        Calls to: WRTTL (report number)

    g. Argument

        DSYNR - The report number (values of 1-4)

    h. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

2.5.7 <u>Program Description</u>

    a. Identification

       File Processor - DSYSM1

    b. Functions. This subroutine displays the results of the File
       Processor by showing summary totals of the units processed.

    c. Input

       Common block.XSUMLVL

    d. Processing. The processing of DSYSM1 is described as follows:

       ● Compute the total number of units processed.
       ● Call DSYSCTL(1) to print the page header.
       ● Write the totals of all the counters accumulated in the
         subroutine CNTLVL.
       ● Return.

    e. Output

       Prints Report #1, File Processor Unit Summary.

    f. Interfaces

       Called by: MAIN

       Calls to: DSYCTL (1)

    g. Tables and Items. Please refer to Table 2-4 for the Data
       Dictionary.

2.5.8 Program Description

a. Identification

File Processor - DSYSM2

b. Functions. This subroutine displays the results of the File Processor by summarizing the requirements and assets records and comparing the counts of the two record types.

c. Input

Common blocks XSUMLVL, XSUMRCD

d. Processing. The processing of DSYSM2 is described as follows:

- For each unit:
  - Read unit ID and record counts from storage.
  - Compute ITOTA as the total number of items where the ERC = A.
  - Compute ITOTB as the total number of items where the ERC = B.
  - Compute PCTA as the percentage of the requirements records filed which also had an assets record for ERC = A.
  - Compute PCTB as the same as PCTA for an ERC = B.
  - Write the unit ID, unit BR, unit name, total A-RECORDS, total B- with C-RECORDS, total B-RECORDS, and percentage computed above for each ERC.

e. Output

Prints Report #2, File Processor TAEDP Record Summary.

f. Interfaces

Called by: MAIN

Calls to: DSYCTL (2)
           RDCNTS

g. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

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2.5.9 <u>Program Description</u>

   a. Identification

      File Processor - LOADA (*)

   b. Functions. This subroutine controls the processing of all of the
A-RECORDS from the Tape Processor output file.

   c. Input

      Common blocks XCONTRL, XINPUT, XUNTDTA

   d. Processing. The processing of LOADA is described as follows:

- If record is part of current A-RECORD set:
  - If unit ID is the same as previous record (i.e., consider the case of two sets of A-RECORDS following each other with no B- or C-RECORDS);
    - Call DECOD(1) for A-RECORD extract.
    - Call CNTRCD(1) to increment record counters.
    - Return 1.
  - Else, if unit ID has changed, close out processing of previous A-RECORD set and start processing new set as in LOADNA case.
- If unit ID is not "1", skip unit and return.
- Call TSTUNT to check if the unit is to be selected. If selected, then return, else return 1.
- If unit selected:
  - Call LOADB0 to close out uncompleted B-RECORDS.
  - Call DECOD(1) for A-RECORD extract.
  - Call CNTLVL (5) and CNTRCD(1).
  - Return 1.
- If unit not selected:
  - Call CNTLVL(1).
  - Return 1.

   e. Output. None.

   f. Interfaces

      Called by: MAIN

      Calls to: CNTLVL (TYPUNT)(5)(1)
              CNTRCD (1)
              DECOD (1)
              LOADB0
              TSTUNT (*, *)

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g. Arguments

*   * - Represents a numbered return in the calling routine.

h. Tables and Items. Please refer to Table 2-4 for the Data
    Dictionary.

2.5.10 <u>Program Description</u>

    a. Identification

        File Processor - LOADB (*)

    b. Functions. This subroutine controls the processing of all of the B-RECORDS from the Tape Processor output file.

    c. Input

        Common blocks XCONTRL, XRQMDTA

    d. Processing. The processing of LOADB is described as follows:

- If present B-RECORD is for same LIN as previous record:
  - Call DECOD(2) to extract fields for B-RECORD.
  - Call ACCUM(2) to accumulate requirements data.
  - Return 1.
- Present record is now for a new LIN.
- Call WRRCD to write the record for the previous LIN.
- If last LIN had requirements and assets records, then call CNTRCD(2).
- If last LIN had only a requirements record, then call CNTRCD(3).
- Return 1.

    e. Output. None.

    f. Interfaces

        Called by: MAIN

        Calls to: ACCUM (2)(0)
                 CNTRCD (2)(3)
                 DECOD (2)
                 WRRCD

    g. Arguments

        * - Represents a numbered return in the calling routine.

    h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.11 Program Description

    a. Identification

        File Processor - LOADBØ

    b. Functions. This subroutine completes the processing of records
        left unfinished due to the transition to a new set of unit
        records.

    c. Input

        Common block XCONTRL

    d. Processing. The processing of LOADBØ is described as follows:

- If first call to LOADBØ, ignore and return.
- Call WRRCD to write the record for previous LIN.
- If last LIN had both requirements and assets records, call
  CNTRCD(2), else call CNTRCD(3).
- Store unit ID and records type counts.
- Return.

    e. Output. None.

    f. Interfaces

        Called by: LOADA
                MAIN

        Calls to: ACCUM (0)
              CNTRCD (2)(3)
              WRRCD
              WRCNTS

    g. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

2.5.12 <u>Program Description</u>

a. Identification

   File Processor - LOADC (*)

b. Functions. This subroutine controls the processing of all of the
    C-RECORDS from the Tape Processor output file.

c. Input

   Common blocks XASTDTA, XCONTRL

d. Processing. The processing of LOADC is described as follows:

   - Call DECODE(3) to extract C-RECORD fields.
   - If LIN has not changed:
     - Set record couple flag (RCDCPL) to 1.
     - Call ACCUM(3).
   - If LIN has changed:
     - Call WRSKP to write this C-RECORD to the Skipped Items File
       since no corresponding B-RECORD exists.
     - Call CNTRCD(4).
   - Return 1.

e. Output

   Calls WRSKP to write a record to the Skipped Items File.

f. Interfaces

   Called by: MAIN

   Calls to: ACCUM (3)
               CNTRCD (4)
               DECODE (3)
               WRSKP

g. Arguments

   * - Represents a numbered return in the calling routine.

h. Tables and Items. Please refer to Table 2-4 for the Data
    Dictionary.

2.5.13 Program Description

a. Identification

File Processor - LOADD

b. Functions. This subroutine controls the processing of all the D-RECORDS for the Tape Processor output file.

c. Input

Common blocks - XASTDTA, XCONTRL

d. Processing. The processing of LOADD is described as follows:

- Call decode(5) to extract D-RECORD fields
- If LIN has not changed:
  - Update number of D-RECORDS
  - If number of D-RECORDS not more than 2:
    - Store LIN Name
    - Set RCDCPL flat
    - Call ACCUM(3)
    - Set LSTRCD to 'D'
    - Return 1
  - If number of D-RECORDS is more than 2:
    - Call WRSKP to write this D-RECORD to Skipped Item File
    - Return 1

e. Output

Calls WRSKP, if needed, to write record to Skipped Items File.

f. Interfaces

Called by: MAIN

Calls to: DECOD, WRSKP, CNTRCD, ACCUM

g. Arguments

* - Represents a numbered return in the calling routine

h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.14 <u>Program Description</u>

    a. Identification

        File Processor - LOADNA (*)

    b. Functions. This subroutine is utilized to close out the
processing of the seven A-RECORDS for each unit whenever the first
B-RECORD is reached.

    c. Input

        Common blocks XCONTRL, XINPUT, XUNTDTA

    d. Processing. The processing of LOADNA is described as follows:

        ● If the previous record was non-A, return 1; else, set NEWSET=1
          to initialized non-A string of records.
        ● If the last A-RECORD was the final fiscal year, set ILDATE to 7
          and return 1.

    e. Output. None.

    f. Interfaces

        Called by: MAIN

        Calls to: None

    g. Arguments

        * - Represents a numbered return in the calling routine.

    h. Tables and Items. Please refer to Table 2-4 for the Data
Dictionary.

2.5.15 <u>Program Description</u>

    a. Identification

        File Processor - LOADT (*)

    b. Functions. This subroutine controls the processing of the
        T-RECORDS containing the CTU change amounts. The routine DECODE
        is called to extract the amounts from the record and move them to
        tables.

    c. Input. None.

    d. Processing. The only statement in this subroutine is to call
        DECODE(4).

    e. Output. None.

    f. Interfaces

        Called by: MAIN

        Calls to: DECODE(4)

    g. Arguments

        * - Represents a numbered return in the calling routine.

    h. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

2.5.16 Program Description

    a. Identification

        File Processor - MERGE

    b. Functions. This subroutine merges the seven fiscal year files
        into a single file.

    c. Input

        Files on Units-11 through 17

    d. Processing. A read of a record from the input file followed
        immediately by a write of this record to the output file. The
        read-write proceeds through each input file in fiscal year order.

    e. Output. A single file on Unit-20.

    f. Interface. None

    g. Argument. None

    h. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

2.5.17 Program Description

   a. Identification

       File Processor - PAGADV

   b. Functions. This subroutine advances the printer to a new page
       after all of the File Processor reports have been written so that
       the termination messages will print on a separate page.

       This subroutine is called by MAIN and contains only a carriage
       control command to advance the printer to a new page.

   No other information is required for this subroutine.

2.5.18 <u>Program Description</u>

    a. Identification

       File Processor - RDCNTS

    b. Functions. This subroutine reads the ID and record type counts for each unit processed, for use in the generation of summary displays.

    c. Input

       Common block - XSUMRCD

    d. Processing. RDCNTS simply reads a record from a mass storage file.

    e. Output. None

    f. Interfaces

       Called by: DSYSM2

       Calls to: None

    g. Arguments. None

    h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.19 Program Description

   a. Identification

       File Processor - RDRCD (*)

   b. Functions. This subroutine reads and extracts information from
       the input file for all units to identify values utilized in record
       selection.

   c. Input

       ● Reads the selected input file, either the Activated Unit File
         or the CTU Unit File, as Unit-7.
       ● Common blocks XCONTRL, XRCD.

   d. Processing

       ● Read a TAEDP record of 239 characters.
       ● Extract the unit ID and letter (A, B, or C).
       ● If record type (letter) = A, then extract the values for
         command, fiscal year, and unit type.
       ● If record type = B, extract the LIN value.
       ● Return.
       ● At EOF, return 1.

   e. Output. None.

   f. Interfaces

       Called by: MAIN

       Calls to: None

   g. Arguments

       * - Represents a numbered return in the calling routine.

   h. Tables and Items. Please refer to Table 2-4 for the Data
       Dictionary.

2.5.20 Program Description

 a. Identification

   File Processor - SRTMRG

 b. Functions. This subroutine will sort the seven fiscal year files
     in inverse DAMPL (priority) sequence and concatenate them into one
     file. This sort will allow the units with the highest priority to
     be uprated by the Assessment Processor first.

 c. Input

   ● The sorted fiscal year file is temporarily saved on Unit-21 and
     is used as output from the sort and input to the Selected Units
     File, the File Processor output file.
   ● Common blocks XASTDTA, XCONTRL, XINPUT, XRQMDTA, XUNTDTA.

 d. Processing. The processing of SRTMRG is described as follows:

   ● For each of the seven fiscal year files (Units-11 through 17,
     execute FSORT to sort the file and write it to a temporary file
     on Unit-21. The sorting sequence of each fiscal year file is
     as follows:
     ● Inverse DAMPL.
     ● Ascending unit ID.
     ● Ascending ERC.
     ● Ascending equipment ID.
   ● Write the sorted, concatenated file to the File Processor
     output file (Unit-20).

 e. Output

   The Selected Units File is created.

 f. Interfaces

   Called by: MAIN

   Calls to: FSORT (FORTRAN sort utility)

 g. Tables and Items. Please refer to Table 2-4 for the Data
     Dictionary.

2.5.21   Program Description

    a.   Identification

       File Processor - TSTCON (*, *)

    b.   Functions. This subroutine tests whether a unit has converted in the designated conversion year.

    c.   Input

       Common blocks XCONTROL, XRCD, XINPUT

    d.   Processing. The processing of TSTCON is described as follows:

- Test for A-RECORD, if found continue, if not, no conversion present, set CONFLG = 0, backspace file to first A-RECORD of unit and take first numbered return.

- Test for unit FD, if FD same as last line, continue, if not, no conversion present, set CONFLG = 0, backspace file to first A-RECORD of unit, and take first numbered return.

- Increase count of A-RECORDS.

- Test unit for conversion year of interest, if found, continue, if not, read next record and restart testing process.

- Test for conversion year code in A-RECORD, if found, set CONFLG = 1, backspace file to first A-RECORD of unit and take first numbered returns, if not, set CONFLG = 0, backspace file to first A-RECORD of unit and take first numbered return.

- When EOF reached, take second numbered return.

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2.5.22 Program Description

    a. Identification

        File Processor - TSTUNT (*, *)

    b. Functions. This subroutine controls the selection of the input
        records based on the input parameter value selected by the user.

    c. Input

        Common blocks XCONTRL, XINPUT

    d. Processing. The processing of TSTUNT is described as follows:

        ● If dataset is "NEWUNT" and fiscal year of first A-RECORD =
           user-input EDATE, then return 1 to symbolize selection; else,
           return 2 to symbolize rejection of record.

        ● If dataset is "CTUUNT" and the command (MACOM) specified on the
           record is flagged as "YES" in the Run Control Parameter File,
           then return 1, else return 2.

    e. Output. None.

    f. Interfaces

        Called by: MAIN

        Calls to: None

    g. Arguments

        The two asterisks represent numbered returns in the calling
        routine.

    h. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

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2.5.23 Program Description

    a. Identification

        File processor - WRCLS

    b. Functions. This subroutine writes the page classification as a footing centered on the last line of every page.

    c. Input

        Common blocks - XCONTRL, XDSYWTH

    d. Processing. The subroutine WRCLS simply checks the width of the detail line for the report number passed to the routine and prints the run classification, normally CONFIDENTIAL, centered on the final line of the page.

    e. Output. The final line of every report.

    f. Interfaces

        Called by: DSYSM1
                  DSYSM2

        Calls to: None

    g. Arguments

        ● DSYNR - the report number (a value of 1 or 2)

    h. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.24 <u>Program Description</u>

    a. Identification

        File processor - WRCNTS

    b. Functions. This subroutine stores the ID and record type counts for each unit processed, for use in the generation of summary displays.

    c. Input

        Common blocks - XSUMRCD, XUNTDTA

    d. Processing

        ● FILEID writes unit ID and record type counts to mass storage.

    e. Output. Single record to Unit-3.

    f. Interfaces

        Called by: LOADBO

        Calls to: None

    g. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.25 Program Description

  a. Identification

      File Processor - WRHDG (DSYNR)

  b. Functions. This subroutine writes the column headings for the
      report specified in the argument passed.

  c. Input

      Common blocks XCONTRL, XINPUT

  d. Processing. The processing of WRHDG is described as follows:

      ● If the Activated Unit File is used, then print the effective
        date (EDATE).
      ● If the CTU Unit File is used, then print the 13 command (MACOM)
        parameters.
      ● If report number (DSNYR) = 1, write the column headings for the
        Unit Summary Report; else, if report number = 2, write the
        column heading for the TAEDP Record Summary Report.

  e. Output. This routine prints the column headings for the two File
      Processor reports, the Unit Summary and the TAEDP Record Summary.

  f. Interfaces

      Called by: WRTTL

      Calls to: None

  g. Arguments

      DSYNR - The report number (value of 1-4)

  h. Tables and Items. Please refer to Table 2-4 for the Data
      Dictionary.

2.5.26 <u>Program Description</u>

 a. Identification

  File Processor - WRRCD

 b. Functions. This subroutine writes combined A-RECORD and B-RECORD data to a set of fiscal year files. The data items particular to each year are indexed by the fiscal year (I). These files are later sorted and combined into one file in the subroutine SRTMGR.

 c. Input

  Common blocks XASTDTA, XCONTRL, XINPUT, XRQMDTA, XUNTDTA

 d. Processing. The processing of WRRCD is described as follows:

  • For fiscal year index range (normally 1 through 7):

   Write the individual file record for the current indexed year. This record is composed of both unit items from the A-RECORD and the individual LIN items from the B-RECORDS for that LIN.

 e. Output

  Seven temporary fiscal year files (units 11 through 17) are created by this routine. In SRTMRG these seven files are merged into one output file (Unit 20), the Selected Units File.

  See Section 3, subparagraph 3.3, Data Base, for further information on the format of the file.

 f. Interfaces

  Called by: LOADB
       LOADBØ

  Calls to: None

 g. Tables and Items. Please refer to Table 2-4 for the Data Dictionary.

2.5.27 Program Description

    a. Identification

        File Processor - WRSKP

    b. Functions. This subroutine writes C-RECORDS to a separate file in
        those instances where there were no corresponding B-RECORDS. The
        subroutine WRUNT is used to write a unit information record to
        this file to be associated with the C-RECORD.

    c. Input

        Common block XASTDTA

    d. Processing. The sole function of WRSKP is to write a record to
        file #10. This record contains the unit ID, equipment ID,
        equipment name, and projected amounts of equipment.

    e. Output. This routine writes a record to file-10 (69 characters in
        length).

    f. Interfaces

        Called by: LOADC

        Calls to: None

    g. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

2.5.28 <u>Program Description</u>

    a. Identification

        File Processor - WRTTL (DSYNR, NPAGE)

    b. Functions. This subroutine prints the header of each File
        Processor report.

    c. Input

        Common block XINPUT

    d. Processing. The processing of WRTTL is described as follows:

        ● Write the run classification entered as a Run Control Parameter
          at the bottom of each page.
        ● Write the report header for the appropriate dataset used and
          the report number requested.

    e. Output. This routine prints the page headings and footings on all
        File Processor reports.

    f. Interfaces

        Called by: DSYCTL

        Calls to: WRHDG (report number)

    g. Arguments

        ● DSYNR - The report number (value of 1-4).
        ● NPAGE - The page number of the report.

    h. Tables and Items. Please refer to Table 2-4 for the Data
        Dictionary.

2.5.29 Program Description

a. Identification

File Processor - XLATE (INDX, IQUAN, CHR)

b. Functions. This subroutine translates the least significant digit
of the equipment quantities from character to integer for each
fiscal year. If no conversion is achieved, move a value of -1 to
the quantity and print an appropriate error message.

c. Input

Common blocks XASTDTA, XCONTRL, XINPUT, XRQMDTA

d. Processing. The processing of XLATE is described as follows:

● For each fiscal year index of the quantity, search the table
  "REF" for a match on the least significant digit and convert it
  to a number. If no match is found, move a -1 to the quantity
  and print an error message.
● If more than 100 translation errors are encountered, STOP
  PROCESSING.

e. Output. An error message for a negative LIN value will be printed
if translation of the least significant digit is unsuccessful.

f. Interfaces

Called by: DECOD

Calls to: None

g. Arguments

● INDX - An index flag.
● IQUAN - The quantity to be translated.
● CHR - The least significant digit.

h. Tables and Items. Please refer to Table 2-4 for the Data
Dictionary.

2.6 Program Description - Assessment Processor. Subsection 2.6 will
contain a description of the main program for the Assessment Processor and
the 44 associated subroutines. A complete listing of the programs to be
discussed in subsection 2.6 is contained below.

Paragraph number	Program name
2.6.1	MAIN
2.6.2	BALBUF
2.6.3	BLDADJ
2.6.4	BLDRTG
2.6.5	BLDTRL
2.6.6	CLRBUF
2.6.7	DSYBUF
2.6.8	DSYCTL
2.6.9	DSYCT1
2.6.10	DSYCT2
2.6.11	DSYCT3
2.6.12	DSYINP
2.6.13	DSYSM1
2.6.14	DSYSM2
2.6.15	DSYSM3
2.6.16	DSYSM4
2.6.17	DSYTRL
2.6.18	DSYWS
2.6.19	DSYXF1
2.6.20	DSYXF2
2.6.21	FILEBC
2.6.22	FILEWS
2.6.23	FRQCNT
2.6.24	GENBUF
2.6.25	IOCTL
2.6.26	LINTST
2.6.27	ORDBOF
2.6.28	PAGADV
2.6.29	PIKUNT
2.6.30	RDRCD
2.6.31	RDRTG
2.6.32	RDWS
2.6.33	SAVID
2.6.34	TBLQTY
2.6.35	TBLRTG
2.6.36	TSTBUF
2.6.37	UICRTG
2.6.38	UICTST
2.6.39	URATE
2.6.40	WRCLS
2.6.41	WRHDG
2.6.42	WRRCD
2.6.43	WRRTG
2.6.44	WRTTL
2.6.45	XFRDTA

A set of figures and tables is provided to assist the reader in understanding the internal logic of the model. The exhibits begin with a flow diagram of the Assessment Processor to provide a general understanding of the system. Other figures which follow are meant to provide a more detailed picture of the logic of the individual data elements and routines. A description of the purpose of each figure is presented below in the same sequence as the figure appears in this subsection.

a. Assessment Processor Flow Diagram. It is recommended that the flow diagram Figure 2-18 be used as the starting point for the first-time reader in understanding the logic of this processor. An attempt has been made to highlight the major functions performed and explain them in such a manner that a reader totally unfamiliar with the system could understand. Subparagraph 2.1, System Description, and 2.3, General Description, should be read first to obtain an introduction to the purpose of the Assessment Processor. The flow diagram is annotated with subroutine names wherever possible in order to link the overall logic of the processor with the individual functions of each routine.

b. Common Block Cross-reference (Assessment Processor). The majority of information is passed between routines via common blocks. Figure 2-19 should assist the reader in understanding which data elements, or blocks of elements, are used in which routines. This should be especially useful when trying to trace an individual element throughout the entire processor, or in cases where a new common block variable is added. If a new variable is added to a common block, this table will show immediately which routines will have access to the new variable.

c. Common Block Dictionary (Assessment Processor). The Common Block Dictionary identifies the individual arrays or variables defined within each common block. Table 2-5 will serve as a useful tool in tracing a specific data element throughout the processor. The Data Dictionary, described on the following page, is also useful in describing the function and usage of each common block element.

d. Program Unit Hierarchy (Assessment Processor). Figure 2-20 shows the structure of all the routines within the Assessment Processor. The processor is comprised of one main program and a series of subroutines, all of which are controlled, directly or indirectly, by the main program. This chart shows how the processor flows from the main program through each of the subroutines. Figure 2-20 along with Figure 2-21 allow the reader to see which routines are called by other routines, rather than by the main program.

e. Subroutine Cross-reference (Assessment Processor). The subroutine cross-reference (Figure 2-21) provides an explanation of which routines control the processing of other routines. On the vertical axis (side of the page), the calling (controlling) routines are shown. The routines called are shown on the horizontal axis (top of page). A dot in the appropriate column links the called routine with the controlling routine.

f. <u>Data Dictionary (Assessment Processor)</u>. Table 2-6 provides a description of each variable passed via common block in the Assessment Processor. This listing includes both variables and arrays and describes the size, format, uses, and purposes of each data element. This table should be used as the main reference for information on the purpose, or other characteristics, of a data element.

g. <u>Report Layouts (Assessment Processor)</u>. Figures 2-22 through 2-34 provide a layout of the reports produced by the Assessment Processor. These figures will be referenced within individual program descriptions wherever applicable and provide further information on the format and content of each report.

NOTE: Figures and tables mentioned in this section appear as a group in the following pages. They are then referenced, as needed, in the later program descriptions.
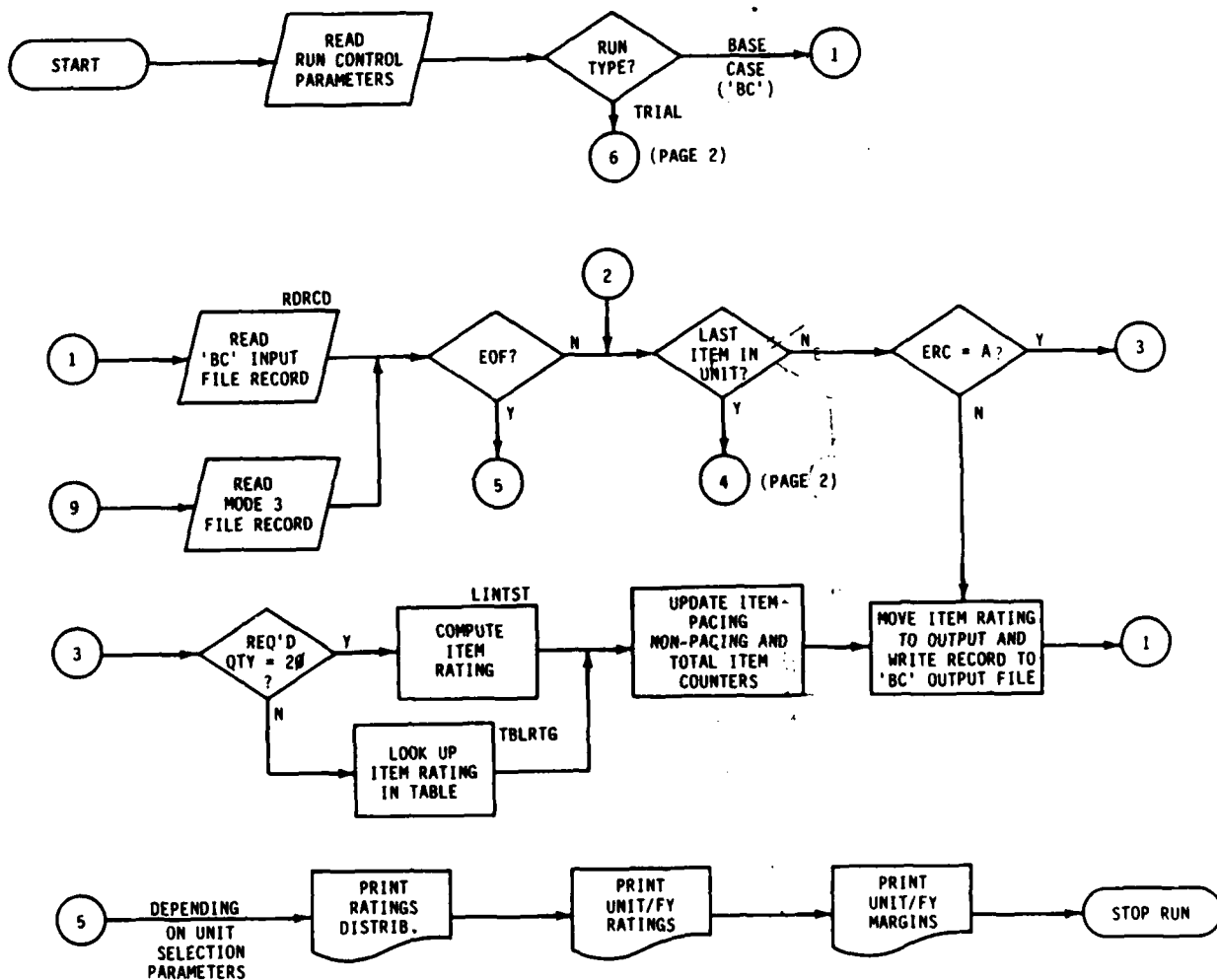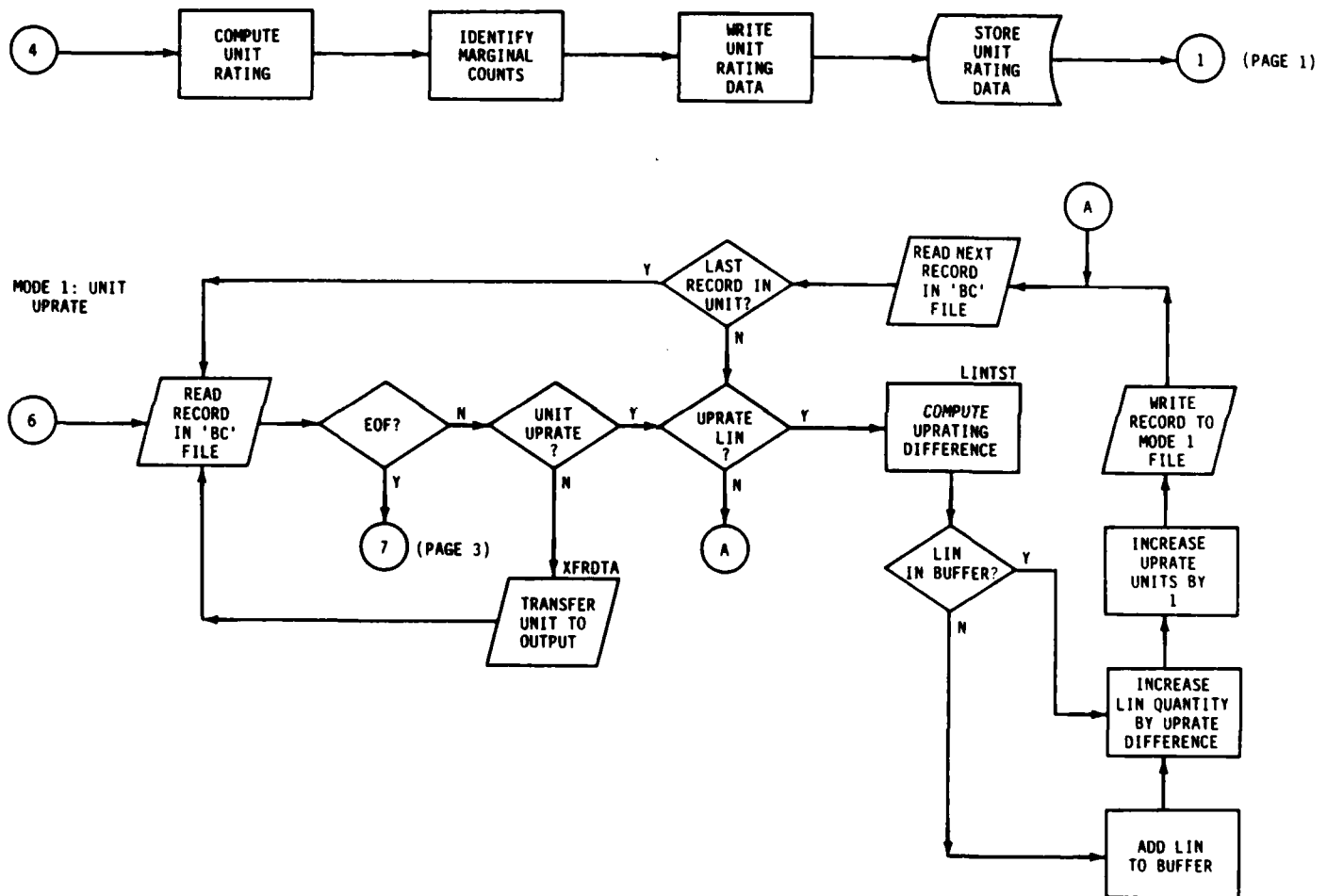
Figure 2-18. Assessment Processor Flow Diagram
(page 1 of 3 pages)

Figure 2-18.   Assessment Processor Flow Diagram
(page 2 of 3 pages)

MODE 2

⑦ → READ RECORD IN MODE 1 FILE

EOF? — N → WORK SHEET DOWN-RATE?

EOF? Y → ⑧

WORK SHEET DOWN-RATE? N → CRITERIA DOWNRATE

WORK SHEET DOWN-RATE? Y →

CRITERIA DOWNRATE Y →

CRITERIA DOWNRATE N → XFRDTA → TRANSFER TO OUTPUT

LIN IN BUFFER? N → WRITE RECORD TO MODE 2 FILE

LIN IN BUFFER? Y → INCREASE LIN BALANCE BY DOWNRATE DIFFERENCE

READ NEXT RECORD IN MODE 1 FILE

LAST LIN IN UNIT — Y →

LAST LIN IN UNIT N →

WRITE RECORD TO MODE 2 FILE → READ NEXT RECORD IN MODE 1 FILE

INCREASE DOWNRATED UNITS BY 1

INCREASE LIN BALANCE BY DOWNRATE DIFFERENCE → INCREASE DOWNRATE LIN TOTAL BY DIFFERENCE

MODE 3

⑧ → READ RECORD IN MODE 2 FILE

EOF? — N → ADJUSTED LIN QTY >∅?

ADJUSTED LIN QTY >∅? N →

ADJUSTED LIN QTY >∅? Y → DECREASE BUFFER BALANCE BY ADJUSTED QTY → SET ADJUSTED LIN QTY TO ∅ → WRITE ADJUSTED LIN RECORD TO MODE 3 FILE

EOF? Y → PRINT BUFFER CONTENTS → BUILD SHORTAGE & BILLPAYER FILES → PRNT SHORTAGE & BILLPAYER REPORTS → ⑨ (PAGE 1)

Figure 2-18.   Assessment Processor Flow Diagram
(page 3 of 3 pages)

ROUTINE	COMMON BLOCK									
	XBUFR	XCONTRL	XCOUNT	XDSYWTH	XIOFILE	XITMDTA	XRSULTS	XRTGCTL	XSELBCT	XUNTDTA
BALBUF	■					■				■
BLDADJ		■								
BLDRTG							■			
BLDTRL							■			■
CLRBUF	■					■				
DSYBUF	■	■								
DSYCTL										
DSYCT1		■					■			
DSYCT2		■					■			
DSYCT3							■			
DSYINP								■		
DSYSM1			■							
DSYSM2			■							
DSYSM3		■					■			
DSYSM4		■					■			
DSYTRL		■							■	
DSYWS		■					■			
DSYXF1	■					■				■
DSYXF2	■					■				■
FILEBC		■					■			
FILEWS		■					■			
FRQCNT			■				■			
GENBUF	■					■				
IOCTL		■			■			■		
LINTST						■		■		
MAIN-BAS		■			■			■	■	
MAIN-TRL		■			■			■	■	
ORDBUF	■									
PAGADV										
PIKUNT									■	■
RDRCD		■			■	■				■
RDRTG							■			
RDWS										■
SAVID		■				■				■
TBLQTY										
TBLRTG										
TSTBUF	■									
UICRTG		■				■		■		
UICTST		■			■	■	■	■	■	■
URATE								■		
WRCLS		■		■						
WRHDG	■	■					■			
WRRCD		■			■	■		■		■
WRRTG		■						■	■	■
WRTTL		■		■						
XFRDTA								■		

Figure 2-19.   Common Block Cross-References (Assessment Processor)

Table 2-5. Common Block Dictionary (Assessment Processor)

Common block	Variables
XBUFR	BUFCOD, BUFNAM, IBUF1, IBUF2, IBUF3, IBUFEN, BUFUIC, IFYDSY
XCONTRL	FRSTFY, RUNCLS, NFYSET, ASOF, EDATE, DTASET CMDSET, CMDPIK, CTUID, RUNTYP, DTADTE
XCOUNT	ICNT, FRQ
XDSYWTH	WIDTH
XIOFILE	RDFILE, WRFILE, RTGSYM
XITMDTA	LIN, LINNM, ERC, PACR, ACFT, IREQD, IAUTH, ICHG, IPROG, LINRTG, FIXSYM, QTYSGN, ADJQTY, RTGSGN, ADJRTG
XRSULTS	NUIC, CODE, TEXT, QUAL, ALOFY, IRATGB, POOLID
XRTGCTL	NP, NT, RTGPAS, PASMAX, ICRATG, SYMBOL
XSELECT	BR, DAMPL, MACOM, ALO, SRC, PIKLVL, TGTLVL
XUNTDTA	POOLNR, NFY, UIC, UBR, UICNM, DTADTE, UDAMPL, UMACOM, USRC, UALO, UEDATE, INDXFY

NOTE: Refer to Table 2-6, Data Dictionary, for additional information on Assessment Processor variables.
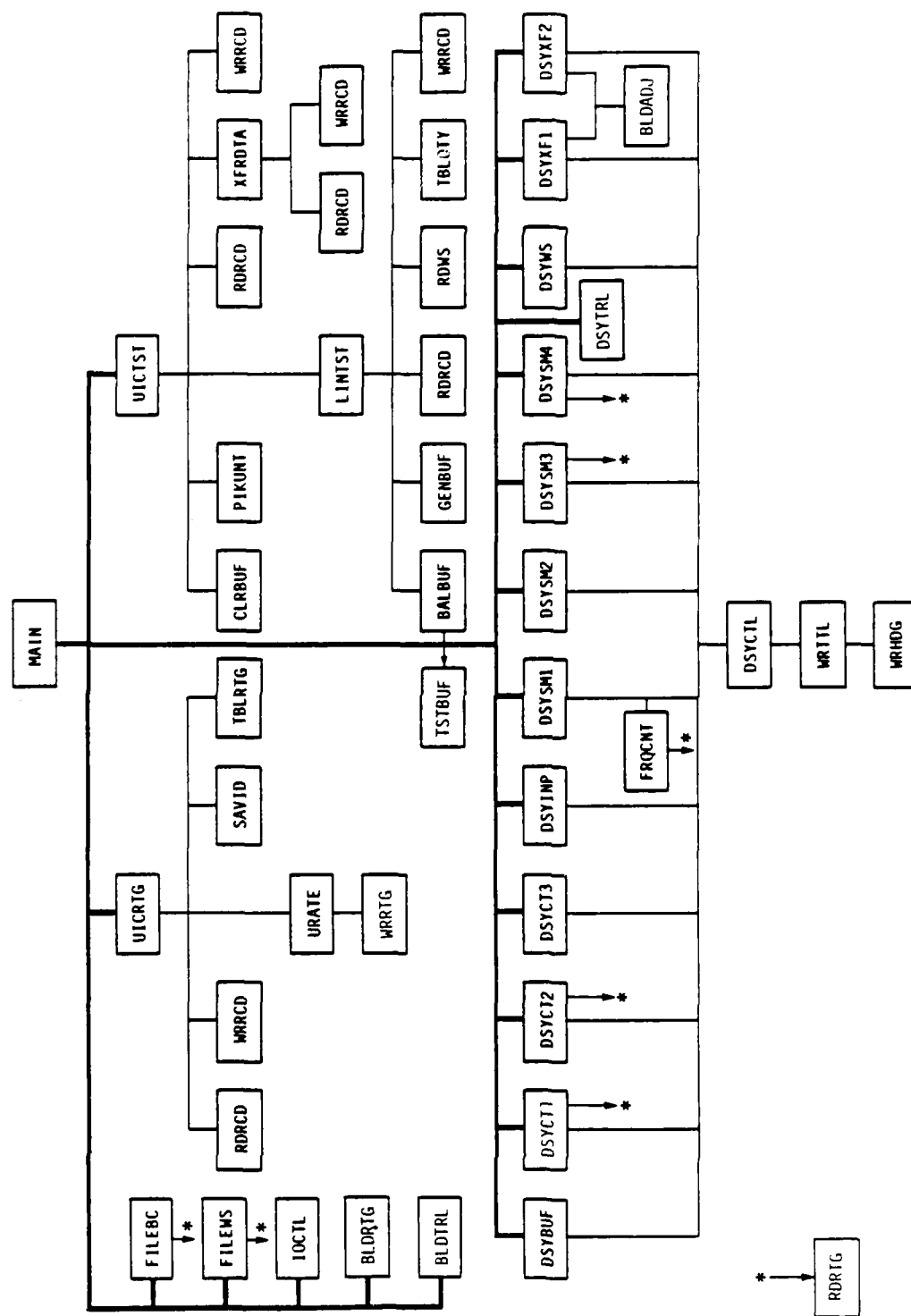
Figure 2-20. Program Unit Hierarchy (Assessment Processor)

Figure 2-21. Subroutine Cross-References (Assessment Processor)

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Table 2-6. Data Dictionary - Assessment Processor
(page 1 of 10 pages)

Name	Subroutine	Size	Fmt	Description
ACFT	LINTST(P) RDRCD(I)* TBLQTY(P) TBLRTG(P) JICRTG(P) .RRCD(O)	N/A	A1	Indicates whether an item is aircraft
ADJQTY	BALBUF(P) CLRBUF(P) DSYXF1(I,P) DSYXF2(I,P) GENBUF(P)* RDRCD(I) UICTST(P)* WRRCD(O)	N/A	I3	The hold area for the equipment amount to be uprated or downrated
ADJRTG	LINTST(P)* RDRCD(I)* UICTST(P)* WRRCD(O)	N/A	I1	The hold area for the rating of the item
ALO	DSYINP(O)* MAIN(I) PIKUNT(P) WRHDG(O)	2	A	The selection parameters for ALO; one for uprate selection, one for downrate selection
ALOFY	DSYCT2(O) DSYSM4(O) SAVID(P)*	7	I	ALO for each year for unit
ASOF	WRTTL(O)*	N/A	A6	Date of TAEDP data stored in code
BR	DSYINP(O,P) MAIN(I)* PIKUNT(P) WRHDG(O)	2	A2	The unit selection parameter for Branch; one for uprate selection, one for downrate selection
BUFCOD	BALBUF(P) CLRBUF(P) DSYBUF(O)* GENBUF(P)	(600x7)	A6	The unit ID of each equipment placed in the buffer

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Table 2-6. Data Dictionary - Assessment Processor
(page 2 of 10 pages)

Name	Subroutine	Size	Fmt	Description
BUFNAM	DSYBUF(O) GENBUF(P)	(600x7)	A24	The unit name of each equipment item placed in the buffer
BUFUIC	BALBUF(P)* CLRBUF(P)	(600x7)	A6	The last unit ID that satisfies the equipment shortage held in the buffer
CTUID	MAIN(I)* WRHDG(O)	N/A	A6	The CTU identifier for display
CMDPIK	MAIN(I)* WRHDG(O)	13	A3	The "YES" or "NO" parameters used to select units for each of the 13 MACOMs
CMDSET	WRHDG(O)*	13	A3	The MACOM abbreviations in processing order
CN	DSYCT"(P,O)* DSYSM1(P,O)* FILEBC(P,O)*	(5x7)	I	The counts at each rating for nonpacing items for each fiscal year
CP	RDRTG(I)* DSYCT1(I,O)* DSYSM4(P,O) FILEBS(P,O)*	(5x7)	I	The counts at each rating for pacing items for each fiscal year
CODE	DSYCT1(O) DSYCT2(O) DSYSM3(O) DSYSM4(O) DSYWS(O) FILEBC(O) FILEWS(O) SAVID(P)*	N/A	A6	The unit ID
CT	RDRTG(I)* DSYCT2(I,O) DSYSM4(P,O)	(5x7)	I	The counts at each rating for all times for each fiscal year

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Table 2-6. Data Dictionary - Assessment Processor
(page 3 of 10 pages)

Name	Subroutine	Size	Fmt	Description
DAMPL	DSYINP(O) MAIN(I)* PIKUNT(P)	(2x2)	I	The DAMPL priority range selection parameter; one pair (high and low values) for uprate, one pair (high and low values) for downrate
DTATDE	MAIN(I)* WRTTL(O)	N/A	A6	The TAEDP run date
DTASET	MAIN(I,P)* WRTTL(P)	N/A	A8	The TAEDP run date
EDATE	MAIN(I)* WRHDG(O)	N/A	I2	Year of unit activation
ERC	RDRCD(I)* UICRTG(P) WRRCD(O)	N/A	A1	Item equipment readiness code
FRQ	DSYSM2(O) FRQCNT(P)*	(6x7)	A	The percentage frequency distribution of unit ratings for each fiscal year (six possible values)
FRSTFY	BLDFIL(P) MAIN(I,P)* UICTST(P)	N/A	I2	First year in planning period
IAUTH	RDRCD(I)* WRRCD(O)	N/A	I4	Item authorized quantity
IBUF1	DSYBUF(O) GENBUF	(600x2x7)	I	Item quantities required and number of units involved (max 600) for each fiscal year
IBUF2	BALBUF(P)* DSYBUF(O)	(600x2x7)	I	Item quantities available and number of units involved (max 600) for each fiscal year
IBUF3	BALBUF(P) CLRBUF(P) GENBUF(P)*	(600x7)	I	Difference (buffer balance) between IBUF1 and IBUF2 for each unit and FY

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Table 2-6.   Data Dictionary - Assessment Processor
(page 4 of 10 pages)

Name	Subroutine	Size	Fmt	Description
IBUFEN	BALBUF(P) CLRBUF(P) DSYBUF(O) GENBUF(P)*	7	I	The length of the buffer for each FY
IBOFNS	GENBUF(P)*	(600x7)	I	Number of subsitutes associated with buffer item by fiscal year.
IBUFPT	ORDBUF(P)*	(600x7)	I	Associated with buffer item by fiscal year
IFP1PT	ORDBUF(P)*	(600x7)	I	Pointer to buffer item in group 1 of sorted items by fiscal year.
IFP2PT	ORDBUF(P)*	(600x7)	I	Pointer to buffer item in group 2 of sorted items by fiscal year.
IFP3PT	ORDBUF(P)*	(600x7)	I	Pointer to buffer item in group 3 of sorted items by fiscal year.
IGP1EN	ORDBUF(P)*	7	I	Number of items in group 1 of sorted items by fiscal year.
IGP2EN	ORDBUF(P)*	7	I	Number of items in group 2 of sorted items by fiscal year.
IGP3EN	ORDBUF(P)*	7	I	Number of items in group 3 of sorted items by fiscal year.
ICHG	RDRCD(I)* UICRTG(P) WRRCD(O)	N/A	I4	Item change quantity
ICNT	DSYSM1(O) FRQCNT(P)*	(6x7)	I	Count of number of unit ratings for each year (six possible types)
ICRATG	SAVRTG(P) TBLRTG(P) URATE(P)*	N/A	I1	Unit C-rating

Table 2-6. Data Dictionary - Assessment Processor
(page 5 of 10 pages)

Name	Subroutine	Size	Fmt	Description
IFYDSY	DSYBUF(P)* DSYXF1(P)* DSYXF2(P)* WRHDG(P)	N/A	I2	Fiscal year index for display
INDXFY	SAVID(P)* SAVRTG(P)	N/A	I2	Fiscal year index
IPROJ	LINTST(P)* RDRCD(I) UICRTG(P) UICTST(P)* WRRCD(O)	N/A	I4	Item projected on-hand quantity
IRATGB	DSYCT1(O) DSYCT2(P,O) DSYCT3(P) DSYSM3(O) DSYSM4(P,O) DSYWS(O) FILEBC(P,O) FILEWS(O) FRQCNT(P) SAVRTG(P)* UICTST(P)*	(2x7)	I	Unit rating by fiscal year
IREQD	LINTST(P) RDRCD(I)* TBLQTY(P) TBLRTG(P) UICRTG(P) WRRCD(O)	N/A	I4	Item required quantity
LIN	BALBUF(P) CLRBUF(P) DSYXF1(I,P,O) DSYXF2(I,P,O) GENBUF(P) RDRCD(I)* WRRCD(O)	N/A	A6	Item identification code

Table 2-6. Data Dictionary - Assessment Processor
(page 6 of 10 pages)

Name	Subroutine	Size	Fmt	Description
LINNM	DSYXF1(I,O) DSYXF2(I,O) GENBUF(P) RDRCD(I)* WRRCD(O)	N/A	A22	Item name on B-RECORD
LINRTG	LINTST(P) RDRCD(I) UICRTG(P)* UICTST(P)* WRRCD(O)	2	I	Holds ratings of individual equipment items within a unit. For CTU units, two ratings are held
MACOM	DSYINP(P,O) MAIN(I)* PIKUNT(P)	2	A3	The unit selection parameters for MACOM; one for unit uprate selection, one for unit downrate selection
NFY	BLDFIL(I,P) DSYXF1(I,P) DSYXF2(I,P) RDRCD(I)* SAVID(P) UICTST(P) WRRCD(O)	N/A	I2	Fiscal year on current A-RECORD
NFYSET	DSYCT2(O) DSYSM4(O) MAIN(P)* SAVID(O) WRHDG(P)	7	I	The set of seven fiscal years of the planning period, expressed as the last two digits of the year
NP	DSYCT2(P,O)* DSYSM4(P,O)* FILEBC(P,O)* SAVRTG(P) UICRTG(P)* URATE(P)	(5x2)	I	The counts at each rating level (0, 1, 2, 3, 4) for pacing items. For CTU units, two counts are held
NT	DSYCT2(P,O)* DSYSM4(P,O)* SAVRTG(P) UICRTG(P)* URATE(P)	(5x2)	I	The counts at each rating level (0, 1, 2, 3, 4) for all items. For CTU units, two counts are held

Table 2-6. Data Dictionary - Assessment Processor
(page 7 of 10 pages)

Name	Subroutine	Size	Fmt	Description
NUIC	DSYCT1(P) DSYCT2(P) DSYCT3(P) DSYSM3(O) DSYSM4(P) DSYSM5(O) FILEBC(P) FILEWS(O) FRQCNT(P) SAVID(P)* WRHDG(O)	N/A	I4	Count of rated units
PACR	RDRCD(I)* UICRTG(P) WRRCD(O)	N/A	A1	Pacing item indicator
PASMAX	MAIN(P) SAVRTG(P) UICRTG(P) URATE(P) WRRCD(P)	N/A	I1	Number of passes to be performed (1 or 2)
PIKLVL	DSYINP(O) MAIN(I)* PIKUNT(P)	2	I	The unit selection parameter for rating level; one for unit uprate selection, one for unit down rate selection
POOLID	SAVID(P)* SAVRTG(P)	N/A	I3	Sequence number of unit in input
POOLNR	RDRCD(I)* RDWS(P) SAVID(P) UICTST(P) WRRCD(O)	N/A	I3	Sequence number of unit in input
QTYSGN	BALBUF(P)* GENBUF(P)* RDRCD(I) WRRCD(O)	N/A	A1	A "+" for uprating and a "-" for downrating

Table 2-6. Data Dictionary - Assessment Processor
(page 8 of 10 pages)

Name	Subroutine	Size	Fmt	Description
QUAL	DSYCT1(O) DSYCT2(O) DSYSM4(O) DSYWS(O) FILEBC(P) SAVID(P)*	N/A	A2	The branch of each unit
RDFILE	IOCTL(P)* RDRCD(I) UICTST(P)	N/A	I2	The device number of the input file
RTGPAS	SAVRTG(P) UICRTG(P)* URATE(P)	N/A	I1	The current rating pass being executed
RTGSGN	LINTST(P)* RDRCD(I)* WRRCD(O)	N/A	A1	A "+" for uprating and a "-" for downrating
RTGSYM	IOCTL(P)* WRRCD(O)	N/A	A1	Letter identifying rating value
RUNCLS	MAIN(I)* WRCLS(O) WRTTL(O)	N/A	A12	Classification of run
RUNTYP	DSYWS(P) FILEWS(P) IOCTL(P) MAIN(I,P)* WRTTL(P)	N/A	A5	"BASE" or "TRIAL"
SRC	DSYINP(P,O) MAIN(I)* PIKUNT(P)	@	A9	The unit selection parameter for SRC; one for unit uprate selection, one for unit downrate selection
SYMBOL	IOCTL(P) LINTST(P)* RDRCD(I)* UICRTG(P) UICTST(P) WRRCD(O) XFRDTA(P)*	N/A	I1	A flag used in item processing

Table 2-6. Data Dictionary - Assessment Processor
(page 9 of 10 pages)

Name	Subroutine	Size	Fmt	Description
TEXT	DSYCT1(O) DSYCT2(O) DSYSM3(O) DSYSM4(O) DSYWS(O) FILEBC(O) SAVID(P)*	N/A	A21	The name of each reported
TGTLVL	DSYINP(O) MAIN(I)* UICTST(P)	2	I	The desired rating level of each unit selected; one for unit uprate selection, one for unit downrate selection
UALO	PIKUNT(P) RDRCD(I)* SAVID(P) WRRCD(O)	N/A	I1	Unit ALO
UBR	PIKUNT(P) RDRCD(I)* SAVID(P) WRRCD(O)	N/A	A2	Unit branch
UDAMPL	PIKUNT(P) RDRCD(I)* WRRCD(O)	N/A	I5	Unit priority
UEDATE	RDRCD(I)* WRRCD(O)	N/A	I2	Effective date of unit
UIC	BALBUF(P) DSYXF1(I,O) DSYXF2(I,O) RDRCD(I)* SAVID(P) WRRCD(O)	N/A	A6	Unit identifier

Table 2-6. Data Dictionary - Assessment Processor
(page 10 of 10 pages)

Name	Subroutine	Size	Fmt	Description
UICNM	DSYXF1(I,0) DSYXF2(I,0) RDRCD(I)* SAVID(P) WRRCD(0)	N/A	A22	Unit name
UMACOM	PIKUNT(P) RDRCD(I)* WRRCD(0)	N/A	A6	Unit MACOM
USRC	PIKUNT(P) RDRCD(I)* WRRCD(0)	N/A	A9	Unit SRC
WIDTH	WRCLS(P) WRTTL(P)*	12	A3	Controls the centering of display lines for all of the 12 reports
WRFILE	IOCTL(P)* WRRCD(0)	N/A	I2	The device number for the output file

NOTES:
   The letter (P, I, O) next to the subroutine names denotes the usage of the table as follows: (P) - processing, (I) - input, (O) - output.
   An asterisk (*) occurring to the right of the routine name indicates that the table is originated by that routine.
   The letter (A, I) in the format column of the table denotes the array characteristics as follows: (A) - alphanumeric, (I) - integer.

```
EDATE MODEL          UNIT EQUIPMENT READINESS DATA DATE:   TESTDATA    PAGE 1
DISPLAY AP / 1/         RATING COUNT WITHIN FY   REPT DATE:   10/14/83

              DATA SET:   ACTIVATED UNITS
              RUN TYPE:   BASE CASE

              *****   UNCLASSIFIED   *****


                   (NUMBER OF UNITS =  50)
```

RATING LEVEL	COUNT OF UNITS AT EACH RATING WITHIN EACH FY						
	FY83	FY84	FY85	FY86	FY87	FY88	FY89
C-0	2	2	2	2	2	2	2
C-1	8	3	5	6	7	5	5
C-2	0	2	1	1	1	5	5
C-3	1	2	1	1	1	1	1
C-4	39	41	41	0	0	1	1
TOTAL	50	50	50	41	40	41	41

```
              *****   UNCLASSIFIED   *****
```

Figure 2-22. Report #1, Rating Count Within FY

```
EDATE MODEL        UNIT EQUIPMENT READINESS DATA DATE:   TESTDATA      PAGE 1
DISPLAY AP / 2/    RATING PERCENT WITHIN FY REPT DATE:   10/14/83

                   DATA SET:  ACTIVATED UNITS
                   RUN TYPE:  BASE CASE

              *****    UNCLASSIFIED    *****


                   (NUMBER OF UNITS =  50)


RATING LEVEL        PERCENT OF UNITS AT EACH RATING WITHIN EACH FY

               FY83      FY84      FY85      FY86      FY87      FY88      FY89

   C-0          4.0       4.0       4.0       4.0       4.0       4.0       4.0

   C-1         16.0       6.0      10.0      12.0      14.0      10.0      10.0

   C-2          .0        4.0       2.0       2.0       2.0       2.0       2.0

   C-3          2.0       4.0       2.0        .0        .0       2.0       2.0

   C-4         78.0      82.0      82.0      82.0      80.0      82.0      82.0


  TOTAL       100.0     100.0     100.0     100.0     100.0     100.0     100.0


              *****    UNCLASSIFIED    *****
```

Figure 2-23. Report #2, Rating Percent Within FY

```
EDATE MODEL                         UNIT EQUIPMENT READINESS          DATA DATE: TESTDATA   PAGE 1
DISPLAY AP / 3/                        7-YEAR SUMMARY I               REPT DATE: 10/14/83

                                    DATA SET:  ACTIVATED UNITS
                                    RUN TYPE:  BASE CASE

                                    *****  UNCLASSIFIED  *****

                                         FY83 ACTIVATIONS
```

NR	UIC	BR	UNIT NAME	FY83	FY84	FY85	FY86	FY87	FY88	FY89
1	UNT050	AG	CO ADMINISTRATIVE	C-1	C-1	C-1	C-1	C-1	C-1	C-1
2	UNT052	IN	BN AIRBORNE	C-4	C-4	C-4	C-4	C-4	C-4	C-4
3	UNT054	IN	BN AIRBORNE	C-4	C-4	C-4	C-4	C-4	C-4	C-4
4	UNT056	AA	HHC DIV AIR ASSAULT	C-4	C-4	C-4	C-4	C-4	C-4	C-4
5	UNT058	FA	HHB DIV ARTY	C-4	C-4	C-4	C-4	C-4	C-4	C-4
6	UNT060	EN	BN AIR ASSAULT	C-4	C-4	C-4	C-4	C-4	C-4	C-4
7	UNT062	SC	BN AIR ASSAULT	C-4	C-4	C-4	C-4	C-4	C-4	C-4
8	UNT064	AR	HHC DIV/HVY DIV	C-1	C-2	C-1	C-1	C-1	C-1	C-1
9	UNT066	CS	HHC DISCOM/HVY DIV	C-4	C-4	C-4	C-4	C-4	C-4	C-4
10	UNT070	FA	BN 155MM SP(3X8) HVY	C-4	C-4	C-4	C-4	C-4	C-4	C-4
11	UNT072	CS	BN MAINTENANCE	C-4	C-4	C-4	C-4	C-4	C-4	C-4
12	UNT074	AR	SQ CAV/HVY DIV (-)	C-4	C-4	C-4	C-4	C-4	C-4	C-4
13	UNT076	FA	HHB DIV ARTY	C-4	C-4	C-4	C-4	C-4	C-4	C-4
14	UNT078	IN	BN MECH/HVY DIV (FVS)	C-1	C-4	C-4	C-4	C-4	C-4	C-4
15	UNT080	AR	BN DIV (MI)	C-1	C-4	C-4	C-4	C-4	C-4	C-4
16	UNT082	SC	BN (-) HVY/DIV	C-4	C-4	C-4	C-4	C-4	C-4	C-4
17	UNT084	AR	HHC BDE	C-4	C-2	C-1	C-1	C-1	C-3	C-3
18	UNT086	AR	SQ CAV /HVY DIV	C-3	C-1	C-1	C-1	C-1	C-1	C-1
19	UNT088	AR	BN HVY DIV (MI)	C-1	C-4	C-4	C-4	C-4	C-4	C-4
20	UNT090	MD	BN HVY DIV	C-4	C-4	C-4	C-4	C-4	C-4	C-4
21	UNT092	AR	BN CSAB/HVY DIV	C-4	C-4	C-4	C-4	C-4	C-4	C-4
22	UNT094	AR	BN HVY DIV (MI)	C-1	C-4	C-4	C-4	C-4	C-4	C-3
23	UNT096	FA	BN BIN/MLRS-HVY DIV	C-1	C-4	C-4	C-4	C-4	C-4	C-4
24	UNT098	IN	BN MECH /HVY DIV(FVS)	C-4	C-4	C-4	C-4	C-4	C-4	C-4
25	UNT100	AR	BN HVY DIV (MI)	C-4	C-4	C-4	C-4	C-4	C-4	C-4

```
                                    *****  UNCLASSIFIED  *****
```

Figure 2-24. Report #3, 7-Year Summary I Report

EDATE MODEL
DISPLAY AP / 4/

UNIT EQUIPMENT READINESS
7-YEAR SUMMARY II

DATA DATE: TESTDATA
REPT DATE: 10/14/83

PAGE 1

DATA SET: ACTIVATED UNITS
RUN TYPE: BASE CASE

***** UNCLASSIFIED *****

FY83 ACTIVATIONS

NR	UIC	BR	UNIT NAME	FY	UNIT RTG	UNIT ALO	PACING ITEM RATGS					NON-PACING RATGS					TOTAL ITEM RATGS				
							TOT	C-1	C-2	C-3	C-4	TOT	C-1	C-2	C-3	C-4	TOT	C-1	C-2	C-3	C-4
1	UNT050	AG	CO ADMINISTRATIVE	83	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
				84	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
				85	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
				86	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
				87	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
				88	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
				89	C-1	1	0	0	0	0	0	7	7	0	0	0	7	7	0	0	0
2	UNT052	IN	BN AIRBORNE	83	C-4	1	6	6	0	0	0	34	28	0	1	5	40	34	0	1	5
				84	C-4	1	7	6	0	1	0	45	32	0	2	11	52	38	0	3	11
				85	C-4	1	7	6	0	1	0	42	30	0	2	10	49	36	0	3	10
				86	C-4	1	7	7	0	0	0	42	33	0	1	9	49	40	0	1	9
				87	C-4	1	7	7	0	0	0	42	33	0	0	9	49	40	0	0	9
				88	C-4	1	7	7	0	0	0	42	33	0	0	9	49	40	0	0	9
3	UNT054	IN	BN AIRBORNE	83	C-4	1	6	6	0	0	0	34	28	0	1	5	40	34	0	1	5
				84	C-4	1	7	6	0	1	0	45	31	0	1	13	52	37	0	2	13
				85	C-4	1	7	6	0	1	0	42	30	0	1	11	49	36	0	2	11
				86	C-4	1	7	7	0	0	0	42	32	0	0	10	49	39	0	0	10
				87	C-4	1	7	7	0	0	0	42	32	0	0	10	49	39	0	0	10
				88	C-4	1	7	7	0	0	0	42	32	0	0	10	49	39	0	0	10
4	UNT056	AA	HHC DIV AIR ASSAULT	83	C-4	2	3	3	0	0	0	10	6	0	0	4	13	9	0	0	4
				84	C-4	1	3	3	0	0	0	10	7	0	0	3	13	10	0	0	3
				85	C-4	1	3	3	0	0	0	10	7	0	0	3	13	10	0	0	3
				86	C-4	1	3	3	0	0	0	10	8	0	0	2	13	11	0	0	2
				87	C-4	1	3	3	0	0	0	10	8	0	0	2	13	11	0	0	2
				88	C-1	1	3	3	0	0	0	10	9	0	0	1	13	12	0	0	1
				89	C-1	1	3	3	0	0	0	10	9	0	0	1	13	12	0	0	1

***** UNCLASSIFIED *****

Figure 2-25. Report #4, 7-Year Summary II Report

Figure 2-26. Report #5, 7-Year Summary I (CTU Units)

EVAL MODEL
DISPLAY AP / 5/

UNIT EQUIPMENT READINESS
7-YEAR SUMMARY I

DATA DATE: TESTDATA
REPT DATE: 10/19/83
PAGE 1

DATA SET: CCT UNITS
RUN TYPE: BASE CASE

***** UNCLASSIFIED *****

UNITS IMPACTED BY CCT 300-73
IN MACOM

STE=NO EUR=NO KOR=NO PAC=NO ALA=NO HAW=NO PAN=NO
FC=YES TC=NO   OTH=NO NG=NO   AR=NO   DAR=NO

|PRE-CCT/POST-CCTI

NR	UIC	BR	UNIT NAME	FY83	FY84	FY85	FY86	FY87	FY88	FY89
1	UNT048	SC	BN 105 T	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
2	UNT051	FA	BN AIRBORNE	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
3	UNT052	IN	BN AIRBORNE	C-3/C-3	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
4	UNT054	IN	BN AIRBORNE	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
5	UNT055	IN	BN AIRBORNE	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
6	UNT058	FA	HHB DIV ARTY	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
7	UNT059	IN	BN AIR ASSAULT	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
8	UNT060	EN	BN AIR ASSAULT	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
9	UNT061	IN	BN AIR ASSAULT	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
10	UNT062	SC	BN AIR ASSAULT	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
11	UNT063	IN	BN AIR ASSAULT	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0
12	UNT070	FA	BN 155MM SP (3X8) HVY	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
13	UNT074	AR	SQ CAV/HVY DIV (-)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
14	UNT076	FA	HHB DIV ARTY	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
15	UNT078	IN	BN MECH/HVY DIV (FVS)	C-0/C-0	C-0/C-0	C-0/C-0	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
16	UNT079	IN	BN MECH	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0
17	UNT081	AR	BN HVY DIV (MI)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
18	UNT082	SC	BN (-) HVY/DIV	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
19	UNT097	AR	HHC BDE ARMOR	C-4/C-2	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0	C-0/C-0
20	UNT098	IN	BN MECH /HVY DIV(FVS)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
21	UNT099	AR	BN HVY DIV (MI)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
22	UNT100	AR	BN HVY DIV (MI)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
23	UNT101	SC	BN(-)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
24	UNT103	FA	BN 8IN/MLRS(-)	C-4/C-4	C-4/C-3	C-1/C-3	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4
25	UNT104	FA	BTY E TGT ACQ(-)	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4	C-4/C-4

***** UNCLASSIFIED *****

EDATE MODEL
DISPLAY AP / 6/

UNIT EQUIPMENT READINESS
7-YEAR SUMMARY II

DATA DATE: TESTDATA   PAGE 1
REPT DATE: 10/19/83

DATA SET: CCT UNITS
RUN TYPE: BASE CASE

***** UNCLASSIFIED *****

UNITS IMPACTED BY CCT 300-73
IN MACOM

STE=NO   EUR=NO   KOR=NO   PAC=NO   ALA=NO   HAM=NO   PAN=NO
FC=YES   TC=NO   OTH=NO   NG=NO   AR=NO   DAR=NO

NR	UIC	BR	UNIT NAME	FY	PRE CCT RTG	UNT ALO	PACING ITEM RATG DIFFERENCES					NON-PACING RATG DIFFERENCES					TOTAL ITEM RATG DIFFERENCES				
							TOT	C-1	C-2	C-3	C-4	TOT	C-1	C-2	C-3	C-4	TOT	C-1	C-2	C-3	C-4
1	UNT048	SC	BN	83	C-4	*	-1	0	-1	0	0	-12	0	-12	0	0	-13	0	-13	0	0
				84	C-4	*	-1	0	0	0	-1	-12	0	0	0	-12	-13	0	0	0	-13
				85	C-4	*	-2	0	0	0	-1	-12	0	0	0	-12	-13	0	0	0	-13
				86	C-4	*	-2	0	0	0	-2	-12	0	0	0	-12	-14	0	0	0	-14
				87	C-4	*	-2	0	0	0	-2	-15	0	0	0	-15	-17	0	0	0	-17
				88	C-4	*	-2	0	0	0	-2	-15	0	0	0	-15	-17	0	0	0	-17
				89	C-4	*	-2	0	0	0	-2	-15	0	0	0	-15	-17	0	0	0	-17
2	UNT051	FA	BN 105 T	83	C-4	*	0	0	0	0	0	-10	0	0	0	-10	-10	0	0	0	-10
				84	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
				85	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
				86	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
				87	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
				88	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
				89	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
3	UNT052	IN	BN AIRBORNE	83	C-4	*	-1	-1	0	0	0	-16	-16	0	0	0	-17	-17	0	0	0
				84	C-4	*	0	0	0	0	0	-5	-5	0	0	0	-5	-5	0	0	0
				85	C-4	*	0	0	0	0	0	-8	-8	0	0	0	-8	-8	0	0	0
				86	C-4	*	0	0	0	0	0	-8	-8	0	0	0	-8	-8	0	0	0
				87	C-4	*	0	0	0	0	0	-8	-8	0	0	0	-8	-8	0	0	0
				88	C-4	*	0	0	0	0	0	-8	-8	0	0	0	-8	-8	0	0	0
				89	C-4	*	0	0	0	0	0	-8	-8	0	0	0	-8	-8	0	0	0
4	UNT054	IN	BN AIRBORNE	83	C-4	*	-1	0	0	0	-1	-16	0	0	0	-16	-17	0	0	0	-17
				84	C-4	*	0	0	0	0	0	-5	0	0	0	-5	-5	0	0	0	-5
				85	C-4	*	0	0	0	0	0	-8	0	0	0	-8	-8	0	0	0	-8
				86	C-4	*	0	0	0	0	0	-8	0	0	0	-8	-8	0	0	0	-8
				87	C-4	*	0	0	0	0	0	-8	0	0	0	-8	-8	0	0	0	-8
				88	C-4	*	0	0	0	0	0	-8	0	0	0	-8	-8	0	0	0	-8
				89	C-4	*	0	0	0	0	0	-8	0	0	0	-8	-8	0	0	0	-8

Figure 2-27. Report #6, 7-Year Summary II (CTU Units)

CAA-D-85-6

```
EDATE MODEL              UNIT EQUIPMENT READINESS      PAGE 1
DISPLAY AP / 7/                                        DATA DATE:  TESTDATA
                            7-YEAR SUMMARY III         REPT DATE:  10/19/83

                         DATA SET:  CCT UNITS
                         RUN TYPE:  BASE CASE

                      *****   UNCLASSIFIED   *****


                      UNITS IMPACTED BY CCT 300-73
                              IN MACOM

        STE=NO    EUR=NO    KOR=NO    PAC=NO      ALA=NO    HAW=NO    PAN=NO
        FC=YES    TC=NO     OTH=NO    NG=NO       AR=NO     DAR=NO


RATING CHANGE      FY83      FY84      FY85      FY86      FY87      FY88      FY89

     -3             1         0         0         1         1         0         0

     -2             0         0         2         0         0         0         0

     -1             0         1         0         0         0         0         0

      0            45        47        47        48        47        48        48

     +1             2         0         0         0         1         1         1

     +2             1         0         0         0         0         0         0

     +3             0         0         0         0         0         0         0

TOTAL UNITS        49        49        49        49        49        49        49


                      *****   UNCLASSIFIED   *****
```

Figure 2-28. Report #7, 7-Year Summary III (CTU Units)

2-154

CAA-D-85-6

```
EDATE MODEL          UNIT EQUIPMENT READINESS      PAGE 1
DISPLAY AP / 8                                     DATA DATE:  TESTDATA
                     ITEM TRANSFER SUMMARY         REPT DATE:  10/18/83

                     DATA SET:  ACTIVATED UNITS
                     RUN TYPE:  TRIAL CASE

                     *****   UNCLASSIFIED   *****


                          FY83

    LIN      NOMENCLATURE         SHORTAGE        BILLPAYERS      STILL
                                QTY    UNITS     QTY    UNITS     SHORT

   M67939  MORTAR 60MM M224       7      1        0      0          7
   N04456  NI VIS GOG AN/PVS-5   45      2        0      0         45
   N04596  NI VIS SIGHT AN/TVS-5  6      1        0      0          6
   R56742  REEL EQPT CE-11       11      1       11      1          0
   R88696  RESUS-ASPIR MAN CYCL   2      1        0      0          2

   Y03104  VIEW INFRARED AN/PAS-7 9      1        0      0          9
   E45820  CODE CH KEY KIK28TSEC  5      1        5      1          0
   G28075  DISTR WATER TANK 900G  1      1        0      0          1
   H02300  ELCT TT TSEC/KW-7      1      1        1      1          0
   K87393  INSTL KIT MK-1629/VRC  7      1        0      0          7

   N04732  NI VIS SIGHT AN/PVS-4 29      1       14      1         15
   P40750  PWR SUP PP-6224/U      1      1        1      1          1
   P43177  PWR SUP ASSY VEH Z-ACD 22     1       11      1         11
   T96975  TLR FLATBED 15T TILT   1      1        0      0          1
   001305  SPEECH SEC TSEC/KY-38 22      1       22      2          0

   W91074  TRACTOR WHL IND %CCE<  4      1        0      0          4
   X39432  TRK CGO 1 1/4T M880    3      1        3      1          0
   X4009   TRK CGO 2-1/2T M35A2   6      1        3      1          3
   X43708  TRK DUMP ST 6X6 M817   3      1        0      0          3


                     *****   UNCLASSIFIED   *****
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Figure 2-29. Report #8, Item Transfer Summary

2-155

EDATE MODEL
DISPLAY AP / 9/

UNIT EQUIPMENT READINESS
WORK SHEET

DATA DATE: TESTDATA
REPT DATE: 10/18/83

PAGE 1

DATA SET: ACTIVATED UNITS
RUN TYPE: TRIAL CASE

***** UNCLASSIFIED *****

NR	UIC	BR	UNIT NAME		FY83	FY84	FY85	FY86	FY87	FY88	FY89
1	UNT050	AG	CO ADMINISTRATIVE	BASE:	C-1	C-1	C-1	C-1	C-1	C-1	C-1
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-1	C-1	C-1	C-1	C-1	C-1	C-1
				NEXT:	C-	C-	C-	C-	C-	C-	C-
2	UNT052	IN	BN AIRBORNE	BASE:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				NEXT:	C-	C-	C-	C-	C-	C-	C-
3	UNT054	IN	BN AIRBORNE	BASE:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				NEXT:	C-	C-	C-	C-	C-	C-	C-
4	UNT056	AA	HHD DIV AIR ASSAULT	BASE:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				NEXT:	C-	C-	C-	C-	C-	C-	C-
5	UNT058	FA	HHB DIV ARTY	BASE:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				NEXT:	C-	C-	C-	C-	C-	C-	C-
6	UNT060	EN	BN AIR ASSAULT	BASE:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				NEXT:	C-	C-	C-	C-	C-	C-	C-
7	UNT062	SC	BN AIR ASSAULT	BASE:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				TRIAL:	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )	C-0 ( )
				ACHVD:	C-4	C-4	C-4	C-4	C-4	C-4	C-4
				NEXT:	C-	C-	C-	C-	C-	C-	C-

***** UNCLASSIFIED *****

Figure 2-30. Report #9, Worksheet

```
EDATE MODEL          UNIT EQUIPMENT READINESS      PAGE 1
DISPLAY AP /10/                                    DATA DATE:  TESTDATA
                          USER INPUT               REPT DATE:  10/18/83

                     DATA SET:  ACTIVATED UNITS
                     RUN TYPE:  TRIAL CASE

                     *****   UNCLASSIFIED   *****



                     UNIT SELECTION PARAMETERS

          PARAMETER                    UPRATE              DOWNRATE
                                       VALUE                VALUE


SELECT-LEVEL                             0                    0

MACOM                                    0                    0

SRC                                      0.                   0

ALO                                      0                    0

BRANCH                                   0                    CS

DAMPL-HI                                 0                    0

DAMPL-LO                                 0                    0

TARGET-LEVEL                             0                    4


                     *****   UNCLASSIFIED   *****
```

Figure 2-31. Report #10, User Input

CAA-D-85-6

```
EDATE MODEL           UNIT EQUIPMENT READINESS      PAGE 1
DISPLAY AP /11/                                     DATA DATE:  TESTDATA
                           SHORTAGE DETAIL          REPT DATE:  10/18/83

                      DATA SET:  ACTIVATED UNITS
                      RUN TYPE:  TRIAL CASE

                      *****   UNCLASSIFIED   *****


                             FY83


   LIN        LIN NAME                UIC        UIC NAME            QTY

  E45820   CODE CH KEY KIK28TSEC    UNT060    BN AIR ASSAULT          5

              TOTALS         UNITS:    1                 ITEMS:      5


                      *****   UNCLASSIFIED   *****
```

Figure 2-32. Report #11, Shortage Detail Report

2-158

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EDATE MODEL          UNIT EQUIPMENT READINESS      PAGE 1
DISPLAY AP /12/                                    DATA DATE:  TESTDATA
                        BILLPAYER DETAIL           REPT DATE:  10/18/83

                  DATA SET:  ACTIVATED UNITS
                  RUN TYPE:  TRIAL CASE

                  *****   UNCLASSIFIED   *****


                           FY83


   LIN        LIN NAME              UIC        UIC NAME           QTY


  E45820   CODE CH KEY KIK28TSEC   UNT060   BN AIR ASSAULT         5


              TOTALS            UNITS:    1          ITEMS:       5


               *****   UNCLASSIFIED   *****
```

Figure 2-33. Report #12, Billpayer Detail Report

```
EDATE MODEL            UNIT EQUIPMENT READINESS              PAGE  1
DISPLAY AP /13/                                              DATA DATE: TESTDATA
                        REDISTRIBUTION UNITS                 REPT DATE: 04/01/84

                       DATA SET: ACTIVATED UNITS
                       RUN TYPE: TRIAL CASE

                  ****** UNCLASSIFIED ******


                       NUMBER OF UNITS SELECTED


                   FY    UPRATED          DOWNRATED          TOTALS
                         UNITS            UNITS


      WORKSHEET    83      0                 0                 0
      PARAMETER    83      4                 4                 8
      TOTALS       83      4                 4                 8


      WORKSHEET    84      0                 0                 0
      PARAMETER    84      4                 4                 8
      TOTALS       84      4                 4                 8


      WORKSHEET    85      0                 0                 0
      PARAMETER    85      4                 4                 8
      TOTALS       85      4                 4                 8


      WORKSHEET    86      0                 0                 0
      PARAMETER    86      4                 4                 8
      TOTALS       86      4                 4                 8


      WORKSHEET    87      0                 0                 0
      PARAMETER    87      3                 4                 7
      TOTALS       87      3                 4                 7


      WORKSHEET    88      0                 0                 0
      PARAMETER    88      3                 4                 7
      TOTALS       88      3                 4                 7


      WORKSHEET    89      0                 0                 0
      PARAMETER    89      3                 4                 7
      TOTALS       89      3                 4                 7
```

Figure 2-34.   Report #13, Redistribution Units

2.6.1 Program Description

a. Identification

Assessment Processor - MAIN

b. Functions. This processor rates each unit present in the input
file by rating each item of equipment separately and then
aggregating all of the ratings into an overall rating for the
unit. Summaries are generated for all of the rating information.
An output file of the ratings is also generated.

This procedure utilizes two methods of execution. One method is
the "BASE" case, which will simply rate all of the units
requested. The other method is the "TRIAL" case, which will
attempt to redistribute the units based on the ratings generated
in the "BASE" case and impact specifications prepared by the user.
Following the redistribution the events are given rated as the
"BASE" case.

c. Input. This process requires the following files as input:

● Run Control Parameter File (MTOE*AP3CTLØ3); Unit-2.
● Selected Units File; Unit-7.
  o CTU File (MTOE*FP3PIK40)
● Worksheet File of Ratings (MTOE*AP3WIN21); Unit-9.
● Base Case File (MTOE*AP3BAS20)
● Common blocks XCONTRL, XIOFILE, XRTGCTL, XSELECT.

d. Processing. The basic code for the MAIN program has been modified
into two variants, each of which addresses a different aspect of
the assessment processing as follows:

MAIN-BAS - process rating of unit equipment.

MAIN-TRL - process redistribution of unit equipments followed by
ratings of unit equipment.

The purpose of the variants is to minimize the mapped size of the
overall program by including in the executable element only those
program units appropriate to the desired processing, i.e., rating
or redistribution.

The processing carried out by each variant as is described below:

MAIN-BAS

● Establish print file in lieu of Unit-6
● Read in data set specific run control parameters

- Read file identification parameters in the first record of the input file
- Test consistency of user parameters and file parameters before proceeding with the run
- Declassify the run if test data is used, as indicated by value of "TEST-DATA" set into variable "DTADTE"
- Establish whether a single rating pass or a dual rating pass (PASMAX) is to be used based on the run type and data set being processed
- Use PASMAX value to test for incorrect input identification
- Compute set of FY years for run
- Initiate rating process
- Insert run parameters into first record of output file for identification purposes and pad the balance of the record with blanks
- Build a composite file of unit rating data from individual FY rating data files that were generated during rating process
- Generate summaries of unit ratins for single or dual rating - depending on the data set being processed
- Generate a worksheet for use in rerating units
- For the base case with new units, generate a file to hold the base case rating data for access during trial case runs

MAIN-TRL

- Establish a print file in lieu of Unit-6
- Read in general run control parameters
- Read file identification parameters in the first record of the input file
- Test consistency of user parameters and file parameters before proceeding with the run
- Declassify the run if test data is used, as indicated by value of "TEST-DATA" set into variable "DTADTE"
- Establish whether a single rating pass or a dual rating pass is to be used based on the run type and data set being processed
- Use PASMAX value to test for incorrect input identification
- For the trial run, read in unit selection parameters and redistribution C-LEVELS, then display unit selection parameters
- Compute set of FY years for run
- Transfer control based on the run type
- If run type is not equal to "BASE"
- Execute unit up-rate
- Execute unit down-rate
- Rewind LIN-STATUS file from pass 1
- Execute unit re-rate
- Rewind LIN-STATUS file from pass 2
- Rewind LIN-STATUS file from pass 3
- Display the number of units involved in redistribution process

- Display the contents of the buffer
- Display unit-by-unit detail of the buffer contents
- Rewind LIN-RAING file
- Initiate rating process
- Insert run parameters into first record of output file for identification purposes and pad the balance of the record with blanks
- Build a composite file of unit rating data from individual rating data files generated during the rating process
- Generate summaries of unit ratings for single or dual rating - depending on the data set being processed
- For the trial case, generate a file containing trial (target) unit ratings
- Generate worksheet for use in re-rating units
- For the base case with new units, generate a file to hold the base case rating data for access during trial case runs

e. Output. The following outputs are produced by the Assessment Processor:

- Rating Count Within FY Report (Report #1, Figure 2-22)
- Rating Percent Within FY Report (Report #2, Figure 2-23)
- 7-Year Summary I Report, New Activations (Report #3, Figure 2-24)
- 7-Year Summary II Report, New Activations (Report #4, Figure 2-25)
- 7-Year Summary I Report, CTU Units, (Report #5, Figure 2-26)
- 7-Year Summary II Report, CTU Units, (Report #6, Figure 2-27)
- 7-Year Summary III Report, CTU Units, (Report #7, Figure 2-28)
- Item Transfer Summary, (Report #8, Figure 2-29)
- Work Sheet Report, (Report #9, Figure 2-30)
- User Input, (Report #10, Figure 2-31)
- Shortage Detail Report, (Report #11, Figure 2-32)
- Billpayer Detail Report, (Report #12, Figure 2-33)
- Redistribution Units Report (Report #13, Figure 2-34)

    f. Interfaces

        Called by: None

        Calls to: DSYBUF
                     DSYCT1
                     DSYCT2
                     DSYCT3
                     DSYINP
                     DSYSM1
                     DSYSM2
                     DSYSM3
                     DSYSM4
                     DSYWS
                     DSYXF1
                     DSYXF2
                     FILEBC
                     FILEWS
                     IOCTL (∅) (1) (2) (3)
                     ORDBUF
                     PAGADV
                     UICRTG
                     UICTST (1) (2) (3)

    g. Tables and Items. Please refer to Table 2-6 for the Data
       Dictionary.

2.6.2 Program Description

a. Identification

Assessment Processor - BALBUF (IDIFF, IFY, *)

b. Functions. This subroutine controls the processing of unit downrating. Specifically, it maintains the count of the balance of each piece of equipment available for the unit versus the equipment required. A separate count is kept for each fiscal year. A balance is maintained for every piece of equipment.

c. Input

Common blocks XBUFR, XITMDTA, XUNTDTA

d. Processing. The processing of BALBUF is described as follows:

● For the applicable fiscal year, search the BUFCOD table for the existence of the unit ID. Once found, the proper index values will be set to reference other tables. If the unit ID is not found in the table (and not blank), return 1.
● Utilizing IDIFF (the amount of equipment found from some other unit) passed for LINTST, adjust the balance for that piece of equipment in the table BALBUF3.
● If the equipment requirement is satisfied, store the unit ID that balanced the buffer.
● Update IBUF2 for total equipment found.
● Store a "-" in QTYSGN to signify downrating.

e. Output. None

f. Interfaces

Called by: LINTST

Calls to: None

g. Arguments

● IDIFF - The difference amount between equipment required and available.
● IFY - The fiscal year index.
● * - Represents a numbered return in the calling routine.

h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.3 Program Description

    a. Identification

        Assessment Processor - BLDADJ (SIGN, NRCDFY)

    b. Functions. This subroutine selects data from the file created by
        mode 2 operation and sorts it by fiscal year, LIN, and unit
        shortage amount. This sort is performed for display purposes for
        the Shortage and Billpayer Reports.

    c. Input

        • The mode 2 file (12) is read sequentially.
        • Common block XCONTRL.

    d. Processing. The processing of BLDADJ is described as follows:

        • Confirm that position 148 of the file #12 record contains a "+"
          for the shortage Report and a "-" for the Billpayer Report.
        • Write the selected record to file #20.
        • Extract the year from the record and update the counter for
          number of records in that year.
        • At the end of the input file, sort the file. This will
          establish the ordering of the Shortage Detail or Billpayer
          Detail Report.
        • Return after sort has completed.

    e. Output. Temporary file #20 (report file) of 160 characters. This
        file is used in DSYXF1 and DSYXF2 to generate Reports #11 and #12.

    f. Interfaces

        Called by: DSYXF1 ("+," number of records for FY)
                      DSYXF2 ("-," number of records for FY)

        Calls to: FSORT (FORTRAN Sort Utility)

    g. Arguments

        • SIGN - Indicator of uprate (+) or downrate (-).
        • NRCDFY - The number of records read for a fiscal year.

    h. Tables and Items. Please refer to Table 2-6 for the Data
        Dictionary.

2.6.4 Program Description

    a. Identification

        Assessment Processor - BLDRTG

    b. Functions. This subroutine builds a mass storage file of unit rating data (overall data and marginal counts) from the unit rating data in individual FY files. In this process, zero entries inserted for FY in which no rating data is present to generate a uniform array of rating data by FY for each unit present.

    c. Input

        Common block - XRSULTS

    d. Processing. The processing of BLDRTG is described as follows:

- Establish a POOLNR index
- Scan across each FY file for match on index
- Where match not found, insert a blank record
- Write summary of data from each FY file to an output file
- Continue until POOLNR index matches total number of units present (NUIC)
- If an FY file EOF occurs before NUIC is reached, enter blank record for FY file and continue

    e. Output. Write of individual FY file records as a composite record to Unit-30.

    f. Interfaces

        Called by: MAIN

        Calls to: FSORT

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

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2.6.5 Program Description

a. Identification

   Assessment Processor - BLDTRL

b. Functions. This subroutine builds a file of trial case rating
   values for use in display generation. The original data file is
   sorted and padded out with any missing fiscal years of data and
   written as a mass storage for access during subsequent display
   generation.

c. Input

   Common blocks - XRSULTS, XUNTDTA

d. Processing. The processing of BLDTRL is described as follows:

   ● Rewind file of rating data
   ● Sort file into POOLNR-FY order
   ● Rewind sorted file and examine for null rating fields and FY
     not present
   ● Pad out with blank records as needed and write out rating
     results to Unit-18

e. Output. Write of sorted rating file to Unit #18.

f. Interfaces

   Called by: MAIN

   Calls to: FSORT

g. Arguments. None

h. Tables and Items. Please refer to Table 2-6 for the Data
   Dictionary.

2.6.6 Program Description

a. Identification

Assessment Processor - CLRBUF (IFY, *)

b. Functions. This subroutine scans the buffer for a match between a given LIN and those present in the buffer. If a match is found for a nonzero balance, the balance for that piece of equipment is adjusted by the adjusted quantity.

c. Input

Common blocks XBUFR, XITMDTA

d. Processing. The processing of CLBUF is described as follows:

● Search each item sequentially in the buffer table BUFCOD for the applicable LIN. If the UIC for that LIN is blank, then adjust the buffer balance (IBUF3) by the adjusted quantity.
● If the item was not found, return 1.

e. Output. None

f. Interfaces

Called by: UICTST (fiscal year, return indicator)

Calls to: None

g. Arguments

● IFY - The fiscal year index.
● * - Represents a numbered return in the calling routine.

h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.7 <u>Program Description</u>

    a. Identification

        Assessment Processor - DSYBUF

    b. Functions. This subroutine displays the contents of the item
        buffers. This display is report #8, Item Transfer Summary. The
        contents are displayed separately for each fiscal year.

    c. Input

        Common blocks XBUFR, XCONTRL

    d. Processing. The processing of DSYBIF is described as follows:

- For each fiscal year
    - Call DSYCTL(8) to control headers.
    - If at least one item is in the fiscal year buffer:
        - For each item, compute the balance (BUFBL) as IBUF1
          quantity minus IBUF2 quantity.
        - Write the detail line for shortage LINs, billpayer LINs
          and balance (still short).
    - If no items in the buffer, write a message.
- Call WRCLS to display the classification at the bottom of every
  page.

    e. Output. Report #8, Item Transfer Summary.

    f. Interfaces

        Called by: MAIN

        Calls to: DYSCTL (8) (0)
                   WRCLS (8)

    g. Tables and Items. Please refer to Table 2-6 for the Data
        Dictionary.

2.6.8 Program Description

a. Identification

Assessment Processor - DSYCTL (DSYNR)

b. Functions. This subroutine controls the formatting of the detail lines for the Assessment Processor reports. The lines are grouped into blocks and the blocks are grouped into pages.

c. Input. None

d. Processing. The processing of DSYCLT is described as follows:

● If this routine is called for the first time for a given report, call WRTTL (report #1).
● If the maximum number of lines per block is reached write a blank line.
● If the maximum number of blocks per page is reached:
 ● Call WRCLS (report number) to print classification.
 ● Call WRTTL (report number, page number) to print headings of following page.
● Return.

e. Output. None

f. Interfaces

Called by: DSYBUF (8) (Ø)
            DSYCT1 (5)
            DSYCT2 (6)
            DSYCT3 (7)
            DSYINP (10)
            DSYSM1 (1)
            DSYSM2 (2)
            DSYSM3 (3)
            DSYSM4 (4)
            DSYWS (9)
            DSYXF1 (11) (Ø)
            DSYXF2 (12) (Ø)

Calls to: WRCLS (report number)
            WRTTL (report number, page number)

g. Arguments

DSYNR - The report number (value of 1-12)

h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.9 <u>Program Description</u>

    a.   Identification

        Assessment Processor - DSYCT1

    b.   Functions. This subroutine produces Report #5, 7-Year Summary I, for all CTU changes. This report displays the results of the rating of all units before and after application of the CTU changes.

    c.   Input

        Common blocks XCONTROL, XRSULTS

    d.   Processing. The processing of DSYCT1 is described as follows:

- Call DSYCTL(5) to print headers.
- For each unit rated:
  - Write the detail line displaying unit ID, branch, unit name, and before/after ratings for each year.
  - Call DSYCTL(5) for page formatting.
- Call WRCLS(5) to print run classification footing.

    e.   Output

        Report #5, 7-Year Summary I, CTU Units.

    f.   Interfaces

        Called by: MAIN

        Calls to: DSYCTL (5)
                     WRCLS (5)

    g.   Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.10 Program Description

a. Identification

Assessment Processor - DSYCT2

b. Functions. This subroutine produces Report #6, 7-Year Summary II,
for all CTU changes. This report displays the results of the dual
rating of all units for each fiscal year, including counts of
differences in item ratings at each C-level.

c. Input

Common blocks XCONTRL, XRSULTS

d. Processing. The processing of DSYCT2 is described as follows:

   ● Call DSYCTL(6) to print headers.
   ● For each year within each unit:
       ● Accumulate NP (number of pacing items), NT (total number of
         items), NNP (number of nonpacing items) for each rating
         level.
       ● Write the detail line displaying unit ID, branch and unit
         name for first year and fiscal year, pre-CTU rating, ALO,
         number of pacing items for each rating (and total), number
         of nonpacing items for each rating (and total) and totals
         for all items combined.
       ● Calls DSYCTL(6) for page formatting.
   ● Call WRCLS(6) to print run classification footing on last page.

e. Output

Report #6, 7-Year Summary II, CTU Units.

f. Interfaces

Called by: MAIN

Calls to: DSYCTL (6)
            WRCLS (6)

g. Tables and Items. Please refer to Table 2-6 for the Data
Dictionary.

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2.6.11 Program Description

    a. Identification

        Assessment Processor - DSYCT3

    b. Functions. This subroutine produces Report #7, 7-Year Summary
        III, for all CCT changes. This report displays the frequency
        counts of unit rating changes by change increment amount for each
        fiscal year.

    c. Input

        Common block XRSULTS

    d. Processing. The processing of DSYCT3 is described as follows:

- Call DSYCTL(7) to print headers.
- For each year within each unit:
  - Compute IDIF as the difference between the first and second rating for each unit.
  - Accumulate number of differences for each rating difference amount (-3, -2, ..., +3) for each year.
  - Accumulate total number of units for each year.
  - Write the detail line displaying the rating change amount (-3 through +3) and the cumulative difference for all the units in each fiscal year.
  - Write the total number of units for each fiscal year.
  - Call WRCLS(7) to print the run classification footing.

    e. Output

        Report #7, 7-Year Summary III, CCT Units.

    f. Interfaces

        Called by: MAIN

        Calls to: DSYCTL (7)
                   WRCLS (7)

    g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

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2.6.12 Program Description

a. Identification

Assessment Processor - DSYINP

b. Functions. This subroutine produces Report #10, User Input. This report displays the input parameters selected by the user to control the selection of units for the "TRIAL" run.

c. Input

Common block XSELECT

d. Processing. The processing of DSYINP is described as follows:

- Call DSTCTL(10) to print headers.
- Replace any blank parameters with a right-justified zero for display purposes.
- Write the uprate value and downrate values for all of the input parameters.
- Write the run classification footing.

e. Output

Report #10, User Input.

f. Interfaces

Called by: MAIN

Calls to: DSYCTL (10)
            WRCLS (10)

g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

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2.6.13 <u>Program Description</u>

    a. Identification

        Assessment Processor - DSYSM1

    b. Functions. This subroutine produces Report #1, Rating Count
        Within FY. This report displays the frequency distribution, by
        count, of unit ratings in each fiscal year. This report will only
        print for the new activations dataset.

    c. Input

        Common block XCOUNT

    d. Processing. The processing of DSYSM1 is described as follows:

        ● Call FRQCNT to compute the number of units achieving either a
          C-0, C-1, C-2, C-3 or C-4 rating in each fiscal year.
        ● Call DSYCTL(1) to print headers.
        ● For each rating value, print the total number of units at that
          rating for each fiscal year.
        ● Call WRCLS(1) to print the run classification footing.

    e. Output

        Report #1, Rating Count Within FY.

    f. Interfaces

        Called by: MAIN

        Calls to: DSYCTL (1)
                FRQCNT
                WRCLS (1)

    g. Tables and Items. Please refer to Table 2-6 for the Data
        Dictionary.

2.6.14 Program Description

a. Identification

Assessment Processor - DSYSM2

b. Functions. This subroutine produces Report #2, Rating Percent
Within FY. This report is similar to Report #1, but prints
percentages of ratings rather than rating counts. This report
will only print for the new activations dataset.

c. Input

Common block XCOUNT

d. Processing. The processing of DSYSM2 is described as follows:

- Call DSYCTL(2) to print headers.
- Utilizing the percentages computed in FRQCNT (as called
  previously by DSYSM1), print the percentage of units contained
  in each rating for each fiscal year. For example, if 10 units
  were rated in FY 82 and 4 had a rating of C-3 and 6 had a
  rating of C-4, then C-3 would show a value of .40.
  and C-4 would show a value of .60.
- Print the cumulative totals.
- Print the run classification footing.

e. Output

Report #2, Rating Percent Within FY.

f. Interfaces

Called by: MAIN

Calls to: DSYCTL (2)
            WRCLS (2)

g. Tables and Items. Please refer to Table 2-6 for the Data
Dictionary.

2.6.15 Program Description

    a. Identification

        Assessment Processor - DSYSM3

    b. Functions. This subroutine produces Report #3, 7-Year Summary I, for new units. This report displays the results of the ratings of all the units for each fiscal year.

    c. Input

        Common blocks XCONTRL, XRSULTS

    d. Processing. The processing of DSYSM3 is described as follows:

        ● Call DSYCTL(3) to print headers.
        ● For each unit, print the unit ID, branch, name and rating for each of the seven fiscal years.
        ● Print the run classification footing.

    e. Output

        Report #3, 7-Year Summary I, New Units.

    f. Interfaces

        Called by: MAIN

        Calls to: DSYCTL (3)
                   WRCLS (3)

    g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.16 Program Description

    a. Identification

       Assessment Processor - DSYSM4

    b. Functions. This subroutine produces Report #4, 7-Year Summary II,
       for new activation units. This report displays the same unit
       ratings as Report #3, but also displays the counts of item ratings
       within the units. This report is similar to Report #6.

    c. Input

       Common blocks XCONTRL, XRSULTS

    d. Processing. The processing of DSYSM4 is described as follows:

- Call DSYCTL(4) to print report headers.
- For each year within each unit:
  - Accumulate NP (number of pacing items), NT (number of total items), and NNP (number of nonpacing items) for each rating level.
  - Write the detail line displaying unit ID, branch and unit name for first year and unit rating, ALO, pacing item rating counts, nonpacing item rating counts, and total counts for each rating level for each year.
- Print the run classification footing.

    e. Output

       Report #4, 7-Year Summary II, New Units.

    f. Interfaces

       Called by: MAIN

       Calls to: DSYCTL (4)
              WRCLS (4)

    g. Tables and Items. Please refer to Table 2-6 for the Data
       Dictionary.
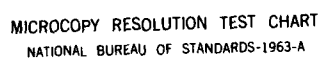
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

2.6.17 <u>Program Description</u>

    a. Identification

       Assessment Processor - DSYTRL

    b. Functions. This subroutine displays counts and marginal totals of the number of units selected by the user for participation in the equipment redistribution based upon both worksheet and parameter specification.

    c. Input

       Common blocks - XSELECT, XCONTRL

    d. Processing. The processing of DSYTRL is described as follows:

       ● Call DSYCTL to print header
       ● Summation of row and column and grand total of counts, computed separately for worksheet and parameter selected units
       ● Display of row, column, and grand total values

    e. Output. Display #13.

    f. Interfaces

       Called by: MAIN

       Calls to: DSYCTL
                  WRCLS

    g. Arguments. None

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.18 Program Description

a. Identification

Assessment Processor - DSYWS

b. Functions. This subroutine produces Report #9, Worksheet. This report displays the results of the rating of all units for each fiscal year. The ratings are displayed (by FY) for each unit for the base case, trial case, achieved by the trial case and a line with blank ratings for use in identifying the ratings in the next trial case.

c. Input

Common blocks XCONTRL, XRSULTS

d. Processing. The processing of DSYWS is described as follows:

- Call DSYCTL(9) to print report headers.
- If run type = "BASE"
  - For every unit ID write a detail line of unit identifying information (first line of unit only) and rating level for each fiscal year for the base case, trial case, achieved level and a blank rating indicator for the next trial case attempt.
- If run type = "TRIAL":
  - For each unit ID:
    - Check a portion of the IRATGB table set in UICTST to determine whether the parameter file target level was used for the desired level or whether the worksheet file was used. A value of 1 through 4 in IRATGB (Unit ID, 2, Fiscal Year) will generate a "(W)" on the TRIAL line of the output to indicate the worksheet was used. A value of 5 through 8 will indicate the parameter file and a "(P)" will print.
    - Write the detail line in the same format as the "BASE" case above.
- Call WRCLS(9) to print the run classification footing.

e. Output

Report #9, Worksheet Display.

f. Interfaces

Called by: MAIN (difference quality, fiscal year)

Calls to: DSYCTL (9)
            WRCLS (9)

g. Tables and Items. Please refer to Table 2-6 for the Data
Dictionary.

2.6.19   Program Description

a.   Identification

Assessment Processor - DSYXF1

b.   Functions. This subroutine produces Report #11, Shortage Detail.
This report displays the unit and equipment shortages which were a
result of the uprating of other units.

c.   Input

● File #21 - Temporary sorted input file for reporting.
● Common blocks XBUFR, XITMDTA, XUNTDTA.

d.   Processing. The processing of DSYXF1 is described as follows:

● Call BLDFIL to build a temporary sorted file in reporting
  sequence in file 21.
● Loop for fiscal year.
● If fiscal year > 7, terminate processing.
● Call DSYCTL(11) to print report headers.
● If the number of records for current fiscal year is zero,
  then print message and move to next fiscal year.
● Read the shortage data from file 21.
● If fiscal year has changed
  ● Backspace to previous record (i.e., to before current
    record).
  ● Write totals for previous year.
  ● Call WRCLS(11) to print run classification.
  ● Branch to top of routine to begin loop for a new fiscal
    year.
● If LIN has changed:
  ● Write a detail line containing the number of items of that
    equipment in that unit.
  ● Call DSYCTL(11) to handle page formatting.
Else,
  ● Write totals for that LIN.
  ● Write the run classification footing.
  ● Call DSYCTL(∅).
  ● Call DSYCTL(11).
  ● Write a detail line containing LIN, equipment name, unit ID,
    unit name, and the number of items of the current LIN.
● Write totals for the LIN.
● Write the run classification footing.
● Return.

e.   Output

Report #11, Shortage Detail Report.

    f. Interfaces

       Called by:
         MAIN

       Calls to:
         BLDFIL ("+", # records in FY)
         DSYCTL (11) (Ø)
         WRCLS (11)

    g. Tables and Items. Please refer to Table 2-6 for the Data
       Dictionary.

2.6.20 Program Description

a. Identification

Assessment Processor - DSYXF2

b. Functions. This subroutine produces Report #12, Billpayer Detail.
This report displays the unit billpayer items of equipment which
resulted for the uprate of the units.

c. Input

- File #21 - Temporary sorted input file for reporting.
- Common blocks XBUFR, XITMDTA, XUNTDTA.

d. Processing. The processing of DSYXF2 is described as follows:

- Call BLDFIL to build a temporary sorted file in reporting
  sequence in file #21.
- Loop for fiscal year.
- If fiscal year > 7, terminate processing.
- Call DSYCTL(12) to print report headers.
- If the number of billpayer items for current fiscal year is
  zero, print a message and move to next fiscal year.
- Read the billpayer data from file #21.
- If fiscal year has changed:
  - Backspace to before current record.
  - Write totals for the previous fiscal year.
  - Call WRCLS(12) to print run classification footing.
  - Branch to top of loop to begin new fiscal year processing.
- If new LIN:
  - Write a detail line containing the number of items of
    previous LIN in the unit.
  - Call DSYCTL(12) to handle page formatting.
Else,
  - Write LIN detail line for totals.
  - Write run classification footing and page headers.
  - Write a detail line containing item number, item name, unit
    ID, unit name, and the count of items for current LIN.
- Write totals for the LIN.
- Write run classification footing.
- Return.

e. Output

Report #12, Billpayer Detail Report

f. Interfaces

Called by: MAIN

Calls to: BLDFIL ("-", # records in FY)
            DSYCTL (11) (Ø)
            WRCLS (11)

g. Tables and Items. Please refer to Table 2-6 for the Data
    Dictionary.

2.6.21 Program Description

a. Identification

Assessment Processor - FILEBC

b. Functions. This subroutine writes the results of the "BASE" case rating of all units to the Base Case File. The ratings are for each fiscal year and include a count on the number of pacing items and nonpacing items.

c. Input

Common blocks XCONTRL, XRSULTS

d. Processing. The processing of FILEBC is described as follows:

- For every unit ID:
  - For every year, compute the number of pacing and non-pacing items.
  - Write the unit number, unit ID (from the routine SAVID), QUAL (the Branch stored in SAVID), TEXT (the unit name stored in SAVID), rating, number of pacing items, and number of nonpacing items to Unit-16.
- Return.

e. Output

File #16, Base Case File

f. Interfaces

Called by: MAIN

Calls to: None

g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.22 Program Description

   a. Identification

       Assessment Processor - FILEWS

   b. Functions. This subroutine stores the Worksheet File. This file
       contains the results of the rating of all units for each fiscal
       year. The file also contains the results from the "BASE" case run
       and provides an extra line for the user to enter the unit ratings
       to be used in the next run.

   c. Input

       ● Unit-16, Base Case File stored by FILEBC routine

       ● Common blocks XCONTRL, XRSULTS.

   d. Processing. The processing of FILEWS is described as follows:

       ● If run tape is "BASE" case, write a detail line of unit number,
         unit ID, base case rating, trial case rating and achieved
         rating. For the base case, all three ratings will
         always be the same.
       ● If run unit "TRIAL", for every unit:
         ● Read file 16 to capture the rating of that unit.
         ● Write the "BASE:" detail line containing the rating from
           unit 8.
         ● For each fiscal year, captured the "W" or "P" indicator from
           IRATGB (unit #, 2, year). The "W" indicates that the rating
           originates from the worksheet and will be represented by an
           IRATGB value of 1 through 4. The "P" indicates that the
           rating originates for the run control target level
           parameters and is represented by a value of 5 through 8.
           The "W" or "P" indicator may vary by unit and/or by fiscal
           year within an individual unit.
         ● Write the "TRIAL:" ratings to the record of four detail
           lines for the current unit. The indicator will be written
           one position after the rating level.
         ● Write the "ACHVD:" ratings to the next detail line.
         ● Write the "NEXT:" blank rating line.
         ● A set of four lines is written for each unit.
       ● Return

   e. Output

       Unit-8, Worksheet File

f. Interfaces

   Called by: MAIN

   Calls to: None

g. Tables and Items. Please refer to Table 2-6 for the Data
   Dictionary.

2.6.23 <u>Program Description</u>

    a. Identification

        Assessment Processor - FRQCNT

    b. Functions. This subroutine calculates the frequency distribution
        of unit ratings by fiscal year. The calculation is both by number
        (used in Report #1) and by percentage (used in Report #2) for each
        year.

    c. Input

        Common blocks XCOUNT, XRSULTS

    d. Processing. The processing of FRQCNT is described as follows:

- For each year (1-7):
  - For each unit (1-NUIC):
    - For each rating ($\emptyset$-4), total the number of ratings of each type and save into ICNT table.
- For each year (1-7):
  - For each rating ($\emptyset$-4), convert the totals computed above into percentages and save into FRQ table.
- Return

    e. Output. None.

    f. Interfaces

        Called by: DSYSM1

        Calls to: None

    g. Tables and Items. Please refer to Table 2-6 for the Data
        Dictionary.

2.6.24 Program Description

a. Identification

Assessment Processor - GENBUF (IDIFF, IFY)

b. Functions. This subroutine creates the tables BUFCOD, BUFNAM, IBUF1, IBUF3, and IBUFEN for the incremental quantities generated in subroutine LINTST. These quantities represent the difference between the quantity on hand and the quantity required to the directed C-rating.

c. Input

Common blocks XBUFR, XITMDTA

d. Processing. The processing of GENBUF is described as follows:

- Search table BUFCOD for all LINs encountered thus far.
- If LIN has not yet been encountered, then add as a new item as follows:
  - Move the LIN to BUFCOD (index #, fiscal year).
  - Move the LIN name to BUFNAM (index #, fiscal year).
  - Move the number of subsitute LINS to IBOFNS
  - Move the difference quantity to IBUF1 (index #, 1, fiscal year) and IBUF3 (index #, fiscal year).
  - Move a "1" to IBUF 1 (index #, 2, fiscal year).
  - Preserve adjusted quantity and sign.
  - Update table index # by 1.
- If LIN has already been encountered, then update the tables for this LIN as follows:
  - Add the difference quantity to IBUF1 and IBUF3.
  - Add one to IBUF1 (index #, 2, fiscal year).
  - Preserve the adjusted quantity and sign.
- Return.

e. Output. None

f. Interfaces

Called by: LINTST

Calls to: None

g. Arguments

- IDIFF - The difference amount between quantity available and quantity required.
- IFY - The fiscal year index.

h. Tables and Items. Please refer to Table 2-6 for the Data
    Dictionary.

2.6.25 Program Description

a. Identification

Assessment Processor - IOCTL (MODE)

b. Functions. This subroutine selects the input and output files used for processing based on the mode of operation. The selected files are passed by common block to the reading and writing subroutines.

c. Input

Common blocks XCONTRL, XIOFILE, XRTGCTL

d. Processing. The processing of IOCTL is described as follows:

- If mode = Ø, move "7" to input file number and "1Ø" to output file for the "BASE" case and "13" to the input file number and "15" to the output file number for the "TRIAL" case.
- If mode = 1:
- Move 1Ø to input file number.
- Move 11 to output file number.
- If mode = 2:
- Move 11 to input file number.
- Move 12 to output file number.
- If mode = 3:
- Move 12 to input file number.
- Move 13 to output file number.

e. Output. None

f. Interfaces

Called by: MAIN (Ø)(1)(2)(3)

Calls to: None

g. Arguments

- MODE - The type of processing (update, downrate, or rerate). A value of 1-3.

h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

CAA-D-85-6

2.6.26 <u>Program Description</u>

   a. Identification

       Assessment Processor - LINTST (MODE, LEVEL, IFY, *)

   b. Functions. This subroutine compares the quantity on hand to the quantity needed to meet the C-rating directed for the unit. If the two quantities are the same, the next item is tested. If a difference is found, it is passed to the buffer subroutine (GENBUF) for storage.

   c. Input

     ● Calls RDRCD (MODE, *, *) to read the TAEDP records.

     ● Common blocks XITMDTA, XRTGCTL.

   d. Processing. The processing of LINTST is described as follows:

     ● If mode = 1, perform unit uprate.
       ● Call RDRCD (1, *400, *500) to read TAEDP record.
       ● If required quantity >20, then compute IDIFF. Else, call TBLGTY (aircraft indicator, required quantity, minimum quantity, level) to compute the minimum quantity on hand required. Compute IDIFF = minimum quantity less projected quantity.
       ● Call GENBUF (IDIFF, fiscal year) to update buffer.
       ● Store difference in rating in ADJRTG and a "+" in RTGSGN.
       ● Increase the quantity on hand by IDIFF and update the item rating (LINRTG).
       ● Call WRRCD to write the item and go to next item.
     ● If mode = 2, perform unit downrate.
       ● Call RDRCD (2, #400, #500) to read the TAEDP record.
       ● If difference between current rating and desired rating is less than zero:
         ● Compute the buffer adjustment.
         ● Call BALBUF (difference quantity, year, #) to adjust the tables in the buffer for this LIN.
         ● Store rating difference in ADJRTG and RTGSGN as "+".
         ● Set item rating to target rating.
       ● Call WRRCD to write the item.
     ● Return.
     ● At EOF, Return 1.

   e. Output. Calls WRRCD to write an item record to the output file specified in IOCTL.

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f. Interfaces

Called by:

UICTST (mode, target level, year, *)

Calls to:

BALBUF (difference quantity, year, #)
GENBUF (difference quantity, year)
RDRCD (1, *, *) (2, *, *)
TBLQTY (aircraft indicator, required quantity, minimum
quantity, target level)
WRRCD

g. Arguments

● MODE - The type of processing (uprate, downrate, or rerate). A
value of 1-3.
● LEVEL - The C-rating level.
● IFY - The fiscal year index.
● * - Represents a numbered return in the calling routine.

h. Tables and Items. Please refer to Table 2-6 for the Data
Dictionary.

2.6.27   Program Description

a.   Identification

Assessment Processor - ORDBUF

b.   Functions. This subroutine groups the equipment buffer rate by decreasing order of unit buffer quantity and groups this sort by number of subsitute LINs present.

c.   Input

Common blocks XBUFR

d.   Processing. The processing of ORDBUF is described as follows:

- Set up a local sorting variable
- Sort local sorting variable in decreasing order of net quantity
- Group sorted order by number of substitute LIN present (i.e., 1, 2, or 3)
- Store size of each group

e.   Output. None

f.   Interfaces

Called by: MAIN

Calls to: None

g.   Arguments. None

h.   Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.28 Program Description

    a. Identification

        Assessment Processor - PAGADV

    b. Functions. This subroutine advances the printer to a new page
        after all of the Assessment Processor reports have been written,
        so that the termination messages will print on a separate page.

        This subroutine is called by MAIN and contains only a carriage
        control command to advance the printer to a new page.

        No other information is required for this subroutine.

2.6.29 <u>Program Description</u>

    a. Identification

        Assessment Processor - PIKUNT (MODE, LEVEL, *)

    b. Functions. This subroutine tests the characteristics of each unit read from the TAEDP against the criteria set by the Run Control Parameters input by the user. If the criteria are met, control is passed to the uprate-downrate portion of the calling program; otherwise, the unit is skipped.

    c. Input

        Common blocks XSELECT, XUNTDTA

    d. Processing. The processing of PIKUNT is described as follows:

- If DAMPL selection was specified, check the unit's DAMPL against range specified.
- If SRC selection was specified, check for a match on the SRC.
- If ALO selection was specified, check for a match on the ALO.
- If BR (Branch) selection was specified, check for a match on the Branch.
- If MACOM selection was specified, check for a match.
- If the unit met all necessary criteria, Return, else Return 1.
- Note: The above criteria used in selection are dependent on whether it is unit uprate (mode 1) or unit downrate (mode 2). Two values, one for each mode, are input by the user.

    e. Output. None

    f. Interfaces

        Called by: UICTST (mode, target level, *)

        Calls to: None

    g. Arguments

- MODE - The type of processing (uprate, downrate, or rerate). A value of 1-3.
- LEVEL - The C-rating level.
- * - Represents a numbered return in the calling routine.

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.30 Program Description

a. Identification

Assessment Processor - RDRCD (MODE, *, *)

b. Functions. This subroutine reads the input file specified by the routine IOCTL to read the unit and equipment data in a modified TAEDP record.

c. Input

- Reads input record of unit and LIN data. This record will be read from either Unit-7, 10, 11 or 12.
- Common blocks XCONTRL, XIOFILE, XITMDTA, XUNTDTA.

d. Processing. The processing of RDRCD is described as follows:

- Read the record for all of the unit data elements and item data elements.
- Test for end-of-unit or end-of-file condition.

e. Output. None

f. Interfaces

Called by: LINTST (mode 1, *, *)
            UICRTG (mode 0, *, *)
            UICTST (mode 1, *, *) (2, *, *) (3, *, *)
            XFRDTA (mode 1, *, *) (2, *, *)

g. Arguments

- MODE - The type of processing (uprate, downrate, or rerate). A value of 1-3.
- * - Represents a numbered return in the calling routine.

h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.31 <u>Program Description</u>

    a. Identification

        Assessment processor - RDRTG

    b. Functions. This subroutine reads the units' rating and margin counts stored by BLDRTG for display purposes.

    c. Input

        ● Unit-30 (temporary)

    d. Processing. The processing of RDRTG is described as follows:

        ● RDRTG reads a single record on Unit-30

    e. Output. Common block XRSULTS.

    f. Interfaces

        Called by: DSYCT1
                    DSYCT2
                    DSYCT3
                    DSYSM3
                    DSYSM4
                    DSYWS
                    FILEWS
                    FRQCNT

        Calls to: None

    g. Arguments: None

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.32 Program Description

a. Identification

Assessment Processor - RDWS (IFY, NOWLVL, NXTLVL)

b. Functions. This subroutine reads the unit rating data from the
Worksheet File generated by the routine FILEWS and subsequently
edited by the user to perform another trial run and
redistribution.

c. Input

● Unit-9, Worksheet File
● Common block XUNTDTA

d. Processing. The routine reads the record detail line for the
"TRIAL" ratings and the fourth detail line for the user-input
ratings for each unit.

If the unit number read is the desired unit, place the trial
rating in the NOWLVL variable and the user input ratings in the
NXTLVC for the fiscal year passed to the routine.

e. Output. None

f. Interfaces

Called by: UICTST (fiscal year, current rating, new rating)

Calls to: None

g. Arguments

● IFY - The fiscal year index.
● NOWLVL - The current rating of the unit.
● NXTLVL - The user-selected rating level to be achieved.

h. Tables and Items. Please refer to Table 2-6 for the Data
Dictionary.

2.6.33 Program Description

a. Identification

   Assessment Processor - SAVID

b. Functions. This subroutine preserves all of the unit information into tables by the original alphanumeric sequence (POOLID) and maintains a count of the number of units. These tables are later referenced during report generation.

c. Input

   Common blocks XCONTRL, XRSULTS, XUNTDTA

d. Processing. The processing of SAVID is described as follows:

   - If tables have not yet been filled for current unit:
     - Preserve the unit ID in the CODE table.
     - Preserve the unit name in the TEXT table.
     - Preserve the branch ID in the QUAL table.
     - Update the flag for highest unit index number.
   - Store the ALO of the unit by FT in ALOFY.

e. Output. None

f. Interfaces

   Called by: UICTRG

   Calls to: None

g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.34 <u>Program Description</u>

a. Identification

Assessment Processor - TBLQTY (ACFT, IREQD, IMIN, LEVEL)

b. Functions. This subroutine identifies the required minimum quantity on hand for a specified authorized quantity and C-rating. In addition, provision is made for a minimum quantity on hand for the lowest rating (C-4). This minimum is set at 40 percent of the authorized quantity rounded down to the nearest integer. The quantities utilized have been set in AR 220-1.

c. Input. None

d. Processing. The subroutine captures the minimum quantity required (IMIN) by using the desired C-rating level and quantity required to access a large table of quantity values. The result of IMIN is passed to the calling subroutine as a parameter.

e. Output. None

f. Interfaces

Called by: LINTST

Calls to: None

g. Arguments

● ACFT - Aircraft indicator flag.
● IMIN - The minimum quantity allowed on-hand.
● IREQD - The required quantity.
● LEVEL - The C-rating level.

h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.35 <u>Program Description</u>

    a. Identification

        Assessment Processor - TBLRTG (ACFT, IREQD, IONHD, ICRATG)

    b. Functions. This subroutine establishes the C-rating of a unit's line item using a table lookup rather than a percentage threshold. This routine is called whenever the quantity on hand to be rated is 20 items or less. A separate lookup value is provided for quantities of aircraft reported at a C-rating of 3. This lookup table is extracted from AR 220-1, Table 3-1.

    c. Input. None

    d. Processing. The processing of TBLRTG is described as follows:

- For rating levels "1" and "2," generate a rating of "1" if the table value is not greater than the quantity on-hand, else, continue.
- For aircraft items
  - If the table value from column 5 is not greater than quantity on hand, generate a rating of 3.
  - Else generate a rating of 4.
- For nonaircraft items
  - If the table value from column 4 is not greater than the quantity on-hand, generate a rating of 3.
  - Else generate a rating of 4.
- Return.

    e. Output. None

    f. Interfaces

        Called by: UICRTG

        Calls to: None

    g. Arguments

- ACFT - Aircraft indicator flag.
- IMIN - The minimum quantity allowed on hand.
- IREQD - The required quantity.
- LEVEL - The C-rating level.

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.36 <u>Program Description</u>

    a. Identification

        Assessment Processor - TSTBUF

    b. Functions. This subroutine tests LIN and LIN substitutes stored in buffer with LIN and LIN substitutes from a billpayer unit to determine if a transfer of assets can be made. The transfer is controlled by the number of substitute LIN associated with billpayer LIN.

    c. Input

        Common blocks - XITMDTA, XBUFR

    d. Processing. The processing of TSTBUF is described as follows:

        • Set up local variable for number of billpayer substitutes present (max = 2)
        • Transfer to test for match based on number of billpayer substitute LIN present
        • If match present, return to continue processing of LIN; if no match, return to process next LIN

    e. Output. Numbered return to calling program unit.

    f. Interfaces

        Called by: BALBUF

        Calls to: None

    g. Arguments

        IFY - Index to FY under consideration
        IP - Pointer to matched LIN in buffer
        I   - Alternate return if no LIN match made

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.37 <u>Program Description</u>

   a. Identification

      Assessment Processor - UICRTG

   b. Functions. This subroutine computes the ratings of each individual item contained in each unit and aggregates the ratings into an overall rating for the unit.

   c. Input

- Calls RDRCD to read an equipment item record.
- Common blocks XCONTRL, XITMDTA, XRTGCTL.

   d. Processing. The processing UICRTG is described as follows:

- Call RDRCD (mode, *, *).
- If this is the first record of a new unit, call SAVID to preserve the identifying information for the new unit.
- For 1 through PASMAX (value of 1 or 2 set in MAIN)
  - If first rating pass, set required quantity (IRQMT) for rating purposes to the quantity required read from the record in RDRCD.
  - If not the first pass and the item change quantity = zero, there is no need to rerate the item; else, set required quantity (IRQMT) to the quantity required, plus the change quantity.
  - For those items where ERC = A and both the required quantity and projected quantity are greater than zero.
    - If required quantity > 20, then compute the percentage of the quantity required to the quantity projected to be on hand.
      - If the percentage $\geq$ 90, rating is 1
      - Else, if $\geq$ 80, rating is 2
      - Else, if $\geq$ 65, rating is 3
      - Else rating is 4.
    - If required quantity 20 or less, call TBLRTG to compute the rating.
    - Update the table for the total number of items with each rating level (NT) and for the pacing items with each rating level (NP) when PACR = "Y".
    - Store the LIN rating for later use in WRRCD.
  - Else set the LIN rating to zero.
  - Call WRRCD to store the rating result.
  - At end of unit, call URATE to rate the unit based on all of the LIN ratings.
  - At end of file, compute rating of final unit and return.

   e. Output. Calls WRRCD to store the item rating result.

f. Interfaces

Called by: MAIN

Calls to: RDRCD (mode, *, *)
            SAVID
            TBLRTG (aircraft flag, minimum quantity, projected on-
            hand quantity, C-rating)
            URATE
            WRRCD

g. Tables and Items. Please refer to Table 2-6 for the Data
   Dictionary.

2.6.38   Program Description

    a.   Identification

        Assessment Processor - UICTST (MODE)

    b.   Functions. This subroutine compares the actual rating of a unit with the rating directed by the input and calls the LINTST subroutine to make the necessary adjustments.

    c.   Input

- Calls RDRCD to read the unit and item data
- Common blocks XCONTRL, XIOFILE, XITMDTA, XRSULTS, XRTGCTL, XSELECT, XUNTDTA.

    d.   Processing. The processing of UICTST is described as follows:

- If mode = 1, execute unit uprate.
  - Call RDRCD to read unit and item data.
  - Call RDWS to read the worksheet file.
  - If the rating input by the user in the "NEXT" line of the work sheet is less (higher) than the current rating.
    - Call LINTST to adjust the equipment to meet the required rating level.
    - Preserve the level in IRATGB table
    - Else, call PIKUNIT to use the run control parameters to select the unit rating information.
    - Call LINTST to adjust the equipment and call XFRDTA to write the remaining items for the unit if selection criteria are not met.
- If mode = 2, execute unit downrate. Repeat the same procedure as mode 1 but for equipment downrate. The only difference lies in the "MODE" parameter passed to LINTST and RDRCD.
- If mode = 3
  - Call RDRCD
  - If the adjusted quantity > 0, call CLRBUF to reduce the buffer by the adjusted quantity
  - Adjust the LIN rating
  - Call WRRCD to rewrite the record
- Return

    e.   Output

        Calls WRRCD to preserve the item rating information

f. Interfaces

    Called by:
       MAIN (mode)

    Calls to:
       CLRBUF (fiscal year, *0
       LINTST (mode, requested level, year, *)
       PIKUNIT (mode, current level, *)
       RDRCD (mode, *, *)
       RDWS (year, current level, requested level)
       WRRCD
       XFRDTA (*)

g. Arguments

    • MODE - The type of processing (uprate, downrate, or rerate). A
      value of 1-3.

h. Tables and Items. Please refer to Table 2-6 for the Data
   Dictionary.

2.6.39 Program Description

a. Identification

Assessment Processor - URATE

b. Functions. This subroutine computes the overall C-rating for a unit and calls SAVRTG to save the rating.

c. Input

Common block XRTGCTL

d. Processing. The processing of URATE is described as follows:

- If unit did not have any LINs (i.e., unit is activated in a future year of the planning period), set all totals and ratings to zero. Call SAVRTG to save the zero rating and return.
- For single (PASMAX = 1) or dual (PASMAX = 2) rating
  - If all of the pacing items have a rating of C-1 and at least 90 percent of all items in the unit have a C-1 rating, then unit rating is C-1.
  - If all of the pacing items have a rating of C-1 or C-2 and at least 90% of all items in the unit have a C-1 or C-2 rating, then unit rating is C-2.
  - If all of the pacing items have a rating of C-1, C-2, or C-3 and at least 90% of all items in the unit have a rating of C-1, C-2, or C-3, then unit rating is C-3.
  - If none of the above three cases is true, then unit rating is C-4.
- Call SAVRTG to save the unit rating.
- Return

e. Output. None.

f. Interfaces.

Called by: UICRTG

Calls to: SAVRTG

g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.40 <u>Program Description</u>

a. Identification

Assessment Processor - WRCLS (DSYNR)

b. Functions. This subroutine writes the page classification as a
footing centered on the last line of every page.

c. Input

Common blocks XCONTRL, XDSYWTH

d. Processing. The subroutine WRCLS simply checks the width of the
detail line for the report number passed to the routine and prints
the run classification, normally "CLASSIFIED" centered on the
final line of the page.

e. Output

The final line of every report.

f. Interfaces

Called by: DSYBUF (8)
              DSYCLT (report number)
              DSYCT1 (5)
              DSYCT2 (6)
              DSYCT3 (7)
              DSYINP (1Ø)
              DSYSM1 (1)
              DSYSM2 (2)
              DSYSM3 (3)
              DSYSM4 (4)
              DSYWS (9)
              DSYXF1 (11)
              DSYXF2 (12)

Calls to: None

g. Arguments

● DSYNR - The report number (a value of 1-12).

h. Tables and Items. Please refer to Table 2-6 for the Data
Dictionary.

2.6.41 <u>Program Description</u>

    a. Identification

        Assessment Processor - WRHDG (DSYNR)

    b. Functions. This subroutine prints the column headings for all 12 Assessment Processor reports.

    c. Input

        Common blocks XBUFR, XCONTRL, XRSULTS

    d. Processing. The subroutine WRHDG prints the appropriate column headings for the report number specified in the passing parameter. For formats of the column headings, see the sample report formats at the end of this section.

    e. Output

        The column headings for all of the reports.

    f. Interfaces

        Called by: WRTTL (report number)

        Calls to: None

    g. Arguments

        ● DSYNR - The report number (a value of 1-12).

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.42 Program Description

a. Identification

Assessment Processor - WRRCD

b. Functions. This subroutine writes the data for each item of equipment in a unit to the output file. The output file number is specified in the routine IOCTL.

c. Input

Common blocks XCONTRL, XIOFILE, XITMDTA, XRTGCTL, XUNTDTA

d. Processing. The subroutine WEECD writes a record for each item of equipment. This record contains identifying information for the unit and LIN as well as the various quantities (required, authorized, change, projected) and rating information. The unit number will be as follows:

● Unit-1∅ - Base case, mode ∅
● Unit-15 - Trial case, mode ∅
● Unit-11 - Mode 1
● Unit-12 - Mode 2
● Unit-13 - Mode 3 (final output file)

e. Output. As stated above.

f. Interfaces

Called by: LINTST
            UICRTG
            UICTST
            XFRDTA

Calls to: None

g. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.43 <u>Program Description</u>

    a. Identification

        Assessment Processor - WRRTG

    b. Functions. This subroutine saves the unit rating data (rating and margin counts) for subsequent display.

    c. Input

        Common blocks - XCONTRL, XRSULTS, XUNTDTA, XRTGCTL

    d. Processing. The processing of WRRTG is described as follows:

        ● For single rated units, writes ratings and margin counts to currently defined FY file

        ● For dual-rated units, computes differences (before and after unit TOE changes) in rating and margin counts and writes values to currently defined FY file

    e. Output. Write to Unit-(20+IFY).

    f. Interfaces

        Called by: URATE

        Calls to: None

    g. Arguments. None.

    h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

2.6.44 Program Description

a. Identification

   Assessment Processor - WRTTL: (DSYNR, NPAGE)

b. Functions. This subroutine prints the page headers for all
   Assessment Processor reports.

c. Input

   Common blocks XCONTRL, XDSYWTH

d. Processing. The processing of WRTTL is described as follows:

   ● The header of "UNIT EQUIPMENT READINESS" will print on the top
     of every report.
   ● The report title will be selected according to the report
     number passed to the routine.
   ● If Dataset = "NEWUNT", the line "ACTIVATED UNITS" will print,
     else, the line "CCT UNITS" will print as the next header.
   ● Either "BASE CASE" or "TRIAL CASE" will print next.
   ● Call WRHDG (report #) to print column headings.

e. Output

   The page headings for each report.

f. Interfaces

   Called by: DSYCTL (report number)

   Calls to: WRHDG (report number)

g. Arguments

   ● DSYNR - The report number (value of 1-13).
   ● NPAGE - The report page number.

h. Tables and Items. Please refer to Table 2-6 for the Data
   Dictionary.

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2.6.45 <u>Program Description</u>

  a. Identification

     Assessment Processor - XFRDTA (*)

  b. Functions. This subroutine transfers data from the input file to the output file without any modification. It is called to transfer any records which do not require any redistribution.

  c. Input

     ● Call RDRCD to read the appropriate input file
     ● Common block XRTGCTL.

  d. Processing. This routine simply calls RDRCD continuously until either a new unit or EOF is encountered. A normal return is executed at end of unit, with a return 1 executed at end of file. For every record read, the routine WRRCD is called to write the record.

  e. Output

     Calls WRRCD to write the to the appropriate output file.

  f. Interfaces

     Called by: UICTST (*)

     Calls to: RDRCD (mode, *, *)
                 WRRCD

  g. Arguments

     * - Represents a numbered return in the calling routine.

  h. Tables and Items. Please refer to Table 2-6 for the Data Dictionary.

SECTION 3. ENVIRONMENT

3.1 <u>Equipment Environment</u>. The E-DATE Model is resident on the UNIVAC 1100/62 Timesharing Multi-Processing System at the Logistics Evaluation Agency.

3.2 <u>Support Software</u>. The E-DATE Model has been developed utilizing FORTRAN 77.

3.3 <u>Data Base</u>. The major data base utilized by the model is the Total Army Equipment Distribution Program (TAEDP) System. The TAEDP data base provides information relative to the force structure, priorities within a force, and equipment to be procured, distributed, maintained, and supported to sustain the force. TAEDP also projects actual equipment densities (current and planned) during the transition of equipment through modernization.

The TAEDP data base undergoes preprocessing at the Logistics Evaluation Agency (LEA) to add the pacing item indicators to the record. This information is critical to the ratings of units in the Assessment Processor consistent with the guidelines set forth in AR 220-1.

3.3.1 <u>General Characteristics</u>. The following files are processed by the E-DATE Model.

● TAEDP Data

This file contains the TAEDP data extract tapes, as originally generated by the Depot System Command and modified by the Logistics Evaluation Agency (LEA), to include pacing items and aircraft item flags.

The TAEDP data extract tapes must be produced as unlabeled, 9 track, 1600 BPI, ASCII character set and quarter-word sensitive. The tapes are identified as file MTOE*MT003041.

● User Data

The user provides two files of data associated with the generation of unprogramed units. One file identifies existing units which are to be the prototypes for the unprogramed units. The other file identifies those existing units which are to provide the assets (billpayer units) to fill the newly created units.

● Consolidated TOE Update (CTU) Data

The CTU data inputs to the Tape Processor are an intermediate product from files prepared by HQ TRADOC in the course of generating the Consolidated TOE update (CTU).

The CTU data extract tapes must be produced as unlabeled, 9-track, 1600 BPI, ASCII character set and quarter-word sensitive.

The tapes are identified as file MTOE*T400 by the Tape Processor.

● Activated Unit File

This file is one of five major outputs from the Tape Processor and contains data on units activated during the 7-year planning period. The file is identical to the format of the TAEDP record.

This file is also utilized as one of the two input files to the File Processor and is identified as MTOE*TP1NEW40 and resides on mass storage.

● Changed Unit File

This file is the second of five major outputs from the Tape Processor and contains data on units affected by the CTU changes in the 7-year planning period. The output format is identical to the format of the TAEDP record.

● Converted Unit File

This file is the third of five major outputs from the Tape Processor and contains data on unit conversions throughout the 7-year planning period.

● Unprogramed Unit File

This file is the fourth of five major outputs from the Tape Processor and contains data on unprogramed events as specified by the user.

● Special Unit File

This file is the fifth of five major outputs from the Tape Processor and contains data on units of special interest to the user.

● Selected Units File

This file is the principal output from the File Processor and contains data for the overall planning period for those units activated in the designated activation year or, in the case of CTU units, those units associated with a particular MACOM.

This file is utilized as the principal input to the "BASE" case of the Assessment Processor. The file resides on mass storage and is identified as MTOE*FP3AK20.

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● Skipped Items File

This file contains all units in the File Processor where an assets record (C-RECORD) was present without a requirements record (B-RECORD). This file is not used by the Assessment Processor but is generated for reference. This file is identified as MTOE*FP3SKP20.

● Base Case File

Each time the Assessment Processor is run for the "BASE" case involving activated units, it generates a file which contains the ratings of the units for each fiscal year. This file is then utilized by the processor during "TRIAL" case runs. This file is resident on mass storage and is identified as MTOE*AP31RB24.

● Item Rating File

This file is produced by the Assessment Processor and contains, for each unit by fiscal year, the rating of each item of equipment in the unit. This file is used to generate the rating for an entire unit by accumulating the rating of each item of equipment. This file is also utilized to generate the Shortage Detail and Billpayer Detail Reports. The file is resident on mass storage and is identified as MTOE*AP3IRT24.

3.3.2 Organization and Detailed Description

The description of the layout of the file discussed in subsection 3.3.1, General Characteristics, is provided in this section. The files are listed in the same sequence as subsection 3.3.1 and represent the operational sequence of the file processing within the model.

TAEDP Data File

Record Length: 239 characters

Storage Medium: Magnetic Tape

Processors Used: Tape

Three formats are presented for this file, one for each record type (A, B, C). Only those fields used in the model are identified.

Table 3-1.   TAEDP Data File Format (A-RECORD)

Name	Positions	Format	Description
CTLLVL	1-6	A¢	Unit ID
MACOM	7-12	A6	Major Command
Not Used	13-33		
TYP-RCD-CD	34	1A	Record Type (A, B, or C)
Not Used	35-45		
FY	46-47	A2	Fiscal Year
Not Used	48-64		
DAMPL	65-69	A5	Army Priority
Not Used	70-109		
Unit Type	110	A1	Unit Type ("1" = TOE unit)
Not Used	111-123		
Unit Name	124-144	A21	The Description of the Unit
Not Used	145-165		
BR Unit CD	166-167	A2	Unit Branch
Not Used	168-184		
SRC	185-196	A12	SRC Code

D-RECORD

The D-RECORD is identical to the C-RECORD except for the following item:

● SUB-LIN (substitute LIN) appears in columns 69-76

This file contains the unit ID in positions 1-6.

CONSOLIDATED TOE UPDATE DATA

Record Length: 39 characters
Storage Medium: Magnetic Tape
Processors Used: Tape

Table 3-3. Consolidated TOE Update File Format

Name	Positions	Format	Description
Not Used	1-11		
SRC	12-20	A9	Self-explanatory
LIN	21-26	A6	Line Item Number
CCTTYP	29	A1	A, B, or C
CHGNRS	30-33	I4	Change Amount
CHGLTR	34	A1	Least Significant character of CHGNRS
CHGBAL	35-39	I5	Final Equipment Balance

ACTIVATED UNIT FILE

Change unit file
Converted unit file
Unprogramed unit file
Special unit file
Record Length: 239 characters
Storage Medium: Mass Storage
Processors Used: Tape, File

These files exist in the identical format to the TAEDP Data.

SELECTED UNITS FILE

Record Length: 180 characters
Storage Medium: Magnetic Tape
Processors Used: File, Assessment

Table 3-4. Selected Units File Format

Name	Positions	Format	Description
Fiscal Year	1-2	I2	Fiscal Year
IUNT	4-7	I4	Unit Count
UMACOM	9-14	A6	Major Command
UBR	16-17	A2	Unit Branch
UIC	19-24	A6	Unit ID
UNAME	26-47	A21	Unit Name
UDAMPL	48-52	I5	Priority
USRC	54-62	A9	Unit SRC
UALO	64	I1	Unit ALO
Fiscal Year	66-67	I2	Effective Date Year
LIN	69-74	A6	Line Item Number
LINS(2)	76-81 & 86-88	A6	Substitute LIN
NSUBFY	90	I1	Number LINs in FY
LINNM	92-113	A22	LIN Name
ERCFY	115	A1	Index for ERC
SYMBOL (PACR)	117	A1	Flag for PACR
SYMBOL (ACFT)	119	A1	Flag for ACFT
CUMRQD	121-123	I7	Quantity Required
CUMATH	129-135	I7	Quantity Authorized
ICHG	137-143	I7	Change Amount
CUMPRJ	145-150	I7	Quantity Projected
Not Used	152-180		

SKIPPED ITEMS FILE

Record Length: 69 characters
Storage Medium: Mass Storage
Processors Used: File

Table 3-5. Skipped Item File Format

Name	Positions	Format	Description
UICC	2-7	A6	
	-15	A6	LIN (C-RECORD)
NSNNM	18-39	A22	LIN Name
IPROJ (&)	43-45	I3	Projected on hand
	47-49		quantity for each fiscal
	51-53		year
	55-57		
	59-61		
	63-65		
	67-69		

BASE CASE FILE

Record Length: 129 characters
Storage Medium: Mass Storage
Processors Used: Assessment

Table 3-6. Base Case File Format

Name	Positions	Format	Description
I	2-5	I4	Index # of Unit
CODE(I)	11-16	A6	Unit ID
QUAL(I)	21-22	A2	Unit Branch
TEXT(I)	27-50	A24	Unit Name
IRATGB	53,64,75,86, 97,108,119	I1	Rating Level for Each Year
NP(K)	55-56,66-67, 77-78,88-89 99-100,110- 111,121-122	I2	Number of Pacing Items in Each Year
NNP(K)	58-60,69-71, 80-82,91-93 102-104,113- 115,124-126	I3	Number of Nonpacing Items in Each Year

ITEM RATING FILE

Record Length: 180
Storage Medium: Mass Storage
Processors Used: Assessment

Table 3-7. Item Rating File Format

Name	Positions	Format	Description
NFY	1-2	I2	Fiscal Year
POOLNR	4-7	I4	Original Unit Sequence #
UMACOM	9-14	A6	Major Command
UBR	16-17	A2	Unit Branch
UIC	19-24	A6	Unit ID
UICNM	26-46	A21	Unit Name
ADAMPL	48-52	I5	Unit Priority
USRC	54-62	A9	Unit SRC
UALO	64	I1	Unit ALO
UEDATE	66-67	I2	Unit Effective Date
LIN	69-74	A6	Line Item Number
LINS(2)	76-81 & 86-88	A6	Substitute LIN
NSUBFY	90	I1	Number LINs in FY
LINNM	92-113	A22	LIN Name
ERC	115	A1	Equipment Readiness Code
PACR	117	A1	Pacing Indicator
ACFT	119	A1	Aircraft Indicator
IREQD	121-127	I7	Quantity Required
IAUTH	125-135	I7	Quantity Authorized
ICHG	137-143	I7	Quantity of Change
IPROJ	145-150	I7	Quantity Projected
RTGSYM	154	A1	Rating Symbol
LINRTG(1)	156	A1	LIN Rating ("BASE")
LINRTG(2)	158	A1	LIN Rating ("TRIAL" only)
SYMBOL	161	A1	Flag
QTYSGN	164	A1	"+" or "-"
ADJQTY	165-167	I3	Adjusted Quantity
RTGSGN	170	A1	Same as QTYSGN
ADJRTG	171	I1	Adjusted Rating
Not Used	172-180		

SECTION 4. PROGRAM MAINTENANCE PROCEDURES

4.1 Conventions

A convention was followed to name all programs and files within the system. All names are eight characters in length and are subdivided as follows:

1-2 Processor Name (TP, FP, AP)
3   Version Number (currently a "3")
4-6 Module name (PRG for program, etc.)
7   Classification (0 - unclassified,
                     2 - confidential
                     4 - secret)
8   Fiscal Year (0 - no fiscal year setting
                  1 through 7 - fiscal year index
                  A through M-MACOM index)

4.2 Verification Procedures

Not applicable.

4.3 Error Conditions

The potential errors that could occur while operating the system will be described in the User's Manual (ref 1.2b(2)).

The limitations placed on the number of SRCs in the CTU Data will cause error messages to be generated and processing to stop if the "WRNPAS" run control parameter was set to "NO". This is applicable only to the Tape Processor and is explained in Section 2, subparagraph 2.4.25 (WRNMSG). Any other messages will originate from the UNIVAC Operation System (EXEC) and should be handled accordingly.

4.4 Special Maintenance Procedures

● Edit, Compile, and Mapping Procedures

The commands used to edit and compile the program unit symbolic code are shown in Figures 4-1(a) and 4-1(b), respectively. The procedure to map recompiled symbolics into absolute code is shown in Figure 4-1(c).

● Executive Control Language (ECL)

The ECL associated with each of the runstreams used to run the three processors is contained in the User Request Processor documentation (ref 1.2.c).

```
@ED,U  FILE  .  ELEMENT
     (MAKE CHANGES)
EXIT
```

Figure 4-1(a). Editing Procedure

```
@FTN, OF  FILE  .  ELEMENT
@  (TO PROMPT COMPILER)
```

Figure 4-1(b). Compilation Procedure

```
TAPE PROCESSOR
@PREP  TP3PRGOO.
@MAP,EN   ,TP3PRGOO.705-TP3/TAPE. NOTE E-OPTION
IN  TP3PRGOO.MAIN
LIB  TP3PRGOO.
END

FILE PROCESSOR
@PREP  FP3PRGOO.
@MAP, N  ,FP3PRGOO.705-FP3
IN  FP3PRGOO.MAIN
LIB  FP3PRGOO

END
ASSESSMENT PROCESSOR
@PREP  AP3PRGOO.
@MAP,EN   ,AP3PRGOO.705-AP3 .NOTE E-OPTION
IN  AP3PRGOO.MAIN
LIB  AP3PRGOO.
END
```

Figure 4-1(c). Mapping Procedure

4.5 Special Maintenance Programs

- File Assignment Command

  The command to assign all of the data files used by the three processors is:

      @ADD,L MTOE*ECL-LIB.ASG-EDATE

  The ECL invoked by this command is shown in Figure 4-2.

- File Deletion Command

  The command to delete all of the data files used by the three processors is:

      @ADD,L MTOE*ECL-LIB.DELETE-EDATE

  The ECL invoked by this command is shown in Figure 4-3.

4.6 Listings

The program listings for each of the three processors, including symbolics, absolutes, and ECL, are resident in the LEA production library.

```
@ASG,UP    MTOE*TP1CTL01.,F///100
@ASG,UP    MTOE*TP1CTL02.,F///100
@ASG,UP    MTOE*TP1CTL03.,F///100
@ASG,UP    MTOE*TP3CTL04.,F///100
@ASG,UP    MTOE*MTOCTU00.,F///1000
@ASG,UP    MTOE*TP3ACT40.,F///10000
@ASG,UP    MTOE*TP3CHG40.,F///10000
@ASG,UP    MTOE*TP3MSG00.,F///100
@ASG,UP    MTOE*TP3APF20.,F///100
@ASG,UP    MTOE*TP3CON40.,F///10000
@ASG,UP    MTOE*TP3NON40.,F///10000
@ASG,UP    MTOE*TP3SPC40.,F///10000
@ASG,UP    MTOE*TP3PRT20.,F///1000
@ASG,UP    MTOE*RTGCTL01.,F///100
@ASG,UP    MTOE*RTGCTL02.,F///100
@ASG,UP    MTOE*FP3PIK20.,F///10000
@ASG,UP    MTOE*FP3SKP20.,F///1000
@ASG,UP    MTOE*FP3PRT20.,F///1000
@ASG,UP    MTOE*RTGCTL01.,F///100
@ASG,UP    MTOE*RTGCTL02.,F///100
@ASG,UP
@ASG,UP    MTOE*AP3IRB20.,F///1000
@ASG,UP    MTOE*AP3BAS20.,F///100
@ASG,UP    MTOE*AP3PRT20.,F///1000
```

Figure 4-2.   File Assignment Command

```
@DELETE                    MTOE*TP1CTL01.,F///100
@DELETE                    MTOE*TP1CTL02.,F///100
@DELETE                    MTOE*TP1CTL03.,F///100
@DELETE                    MTOE*TP3CTL04.,F///100
@DELETE                    MTOE*MTOCTU00.,F///1000
@DELETE                    MTOE*TP3ACT40.,F///10000
@DELETE                    MTOE*TP3CHG40.,F///10000
@DELETE                    MTOE*TP3MSG00.,F///100
@DELETE                    MTOE*TP3APF20.,F///100
@DELETE                    MTOE*TP3CON40.,F///10000
@DELETE                    MTOE*TP3NON40.,F///10000
@DELETE                    MTOE*TP3SPC40.,F///10000
@DELETE                    MTOE*TP3PRT20.,F///1000
@DELETE                    MTOE*RTGCTL01.,F///100
@DELETE                    MTOE*RTGCTL02.,F///100
@DELETE                    MTOE*FP3PIK20.,F///10000
@DELETE                    MTOE*FP3SKP20.,F///1000
@DELETE                    MTOE*FP3PRT20.,F///1000
@DELETE                    MTOE*RTGCTL01.,F///100
@DELETE                    MTOE*RTGCTL02.,F///100
@DELETE
@DELETE                    MTOE*AP3IRB20.,F///1000
@DELETE                    MTOE*AP3BAS20.,F///100
@DELETE                    MTOE*AP3PRT20.,F///1000
```

Figure 4-3. File Deletion Command

END

FILMED

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DTIC